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THE GERMAN TRANSFER PROBLEM

The Dawes Committee divided the problem of the payment of German Reparations into two parts—into the *Budgetary* Problem of extracting the necessary sums of money out of the pockets of the German people and paying them to the account of the Agent-General, and the *Transfer* Problem of converting the German money so received into foreign currency.

As time has gone on, opinion has become even more sharply divided than it was on the question whether this dichotomy has theoretical and practical significance. The view has been widely expressed that the Transfer Problem is of quite secondary importance and that, so long as the Budgetary Problem is solved, the Transfer Problem will, in the main, solve itself. The following note is directed to a theoretical discussion of this issue.

Those who think that the Transfer Problem is secondary argue thus. The German people receives its income in return for its current output of goods and services. If an appropriate part of this income is sequestrated, there will be no buyers for a corresponding amount of goods, which will therefore be available (in addition to what would be available otherwise) to expand exports or in diminution of imports. Since not all the consumption of goods and services, which the German people are compelled to forgo, is suitable for export, there will have to be a certain amount of change-over in the character of production. There is, however, no reason to suppose that ordinary economic forces will not bring this about within a reasonable space of time. Thus—according to this school—the real question is, how much cash can the German Government raise by sound financial methods and pay over to the Agent-General. Once this is settled, we can be sure that a way will be found of looking after the Transfer Problem.

Now I do not doubt that there are sets of premisses from which this conclusion follows. For example, there is one very

simple set from which it obviously follows. For let us suppose that the German factors of production produce nothing but exports and consume nothing but imports; in this case it is evident that there is only a Budgetary Problem and no Transfer Problem;—or rather the Transfer Problem is removed from the shoulders of Germany and becomes a problem as between the recipients of reparation and the countries from which Germany previously drew her imports.

But, on the other hand, if we suppose that Germany is already exporting all the goods which she has facilities for producing on any terms on which the rest of the world will buy them—suppose, for example, that, not so unlike Russia to-day, her exports are limited to caviare and platinum, of which the output cannot be increased—then the Transfer Problem is paramount and, indeed, insoluble. Or, again, let us suppose that, whilst, as before, Germany's exports are limited to caviare and platinum, she is, this time, in a position to increase their output, but unfortunately the demand of the rest of the world for these articles has an elasticity of less than unity. In this case the more she exports, the smaller will be the aggregate proceeds. Again the Transfer Problem will be a hopeless business.

The first question to consider is, therefore, a question of fact—whereabouts between the two extremes exemplified above is present-day Germany situated? In other words, our first question is, whether there exists an ideal distribution of Germany's factors of production as between different uses which, if it could be arranged, would solve the Transfer Problem?

When this question has been dealt with, there remains a second question,—How completely and by what train of causation is the machinery of the Dawes scheme capable of bringing about this ideal distribution?

I

(1) If £1 is taken from you and given to me and I choose to increase my consumption of precisely the same goods as those of which you are compelled to diminish yours, there is no Transfer Problem. Those who minimise the question of transfer seem sometimes to imply that the above is a fair representation of the present facts. To the extent that high taxation causes German consumers to buy less foreign goods, it is a fair representation. But clearly only a proportion of their abstention from consuming will be in respect of foreign goods, and, so far as one can judge at present, not a very large proportion. Moreover, the German balance of trade *already* has most of the benefit

of this, inasmuch as individual Germans are already paying enough, or nearly enough, taxes to solve the Budgetary Problem, and are, therefore, already reducing their personal consumption to the requisite extent.

(2) For the last two or three years the Transfer Problem has been temporarily solved by Germany borrowing abroad for capital purposes at home, cash which she does not bring home in the shape of imports. She has been using this cash to buy back from the Agent-General the proceeds of taxes paid over to him, out of which she then pays the wages of German workmen employed on capital improvements within Germany. Clearly this process of borrowing from abroad cannot go on indefinitely. When it comes to an end, it will be necessary to divert the labour which it now employs to producing for export.

Thus it will not be—in the main—a question of reducing German consumption. In so far as the Budgetary Problem has been already solved, the necessary reduction of consumption is already effective. When the foreign borrowing comes to an end, it will be a question, not of reducing current consumption in Germany, but of transferring labour from capital works in Germany to the export trades. Only in so far as additional savings within Germany take the place in future of foreign loans will there be any surplus of resources which were previously directed to supplying German consumers. On the other hand, where the output of capital improvements, financed by foreign loans is not in an exportable form (and much of it will not be in such a form), the diversion of production out of other employments into the export trades (or to produce goods previously imported) will have to be on a greater scale than is required by the payment of Reparations alone, since it will be necessary to provide also for the interest on the foreign loans.

(3) I conclude, therefore, that the solution of the Transfer Problem must come about, in the main, not by the release to foreign consumers of goods now consumed by Germans (*e.g.* wheat, sugar, cotton), but by the diversion of German factors of production from other employments into the export industries.[1]

(4) Now, what prevents Germany from having a greater volume of exports at the present time? Is it that the export trades cannot attract more labour at the present level of remuneration? Or is it that they cannot sell an increased output at a profit unless they can first reduce their costs of production? The available facts seem to indicate that the first, namely, inadequate

[1] For brevity, I include in these in what follows the production of goods previously imported.

supplies of labour at the present rates of remuneration, plays little or no part, and that the second is the real explanation.

That is to say, the solution of the Transfer Problem requires a reduction of German gold-costs of production relatively to such costs elsewhere. There are three ways of bringing this about. Either German industrialists must increase their efficiency faster than industrialists elsewhere; or the rate of interest in Germany must be lower than elsewhere; or the gold-rates of efficiency-wages must be reduced compared with elsewhere. Since German industrialists are reputed to be already at a fairly high level of efficiency relatively to those of other countries, I do not know why we should assume that they will outstrip us yet further. For it is not enough that they should increase their efficiency (that they will doubtless do); they must increase it faster than others increase their efficiency. Nor is there any prospect of relatively cheap money for Germany; though there may be some future gain from a fall of German interest rates below their present high level. It follows that the Transfer Problem requires a reduction in the present gold-rates of efficiency-wages in Germany relatively to efficiency-wages elsewhere.

That is the first point to establish. The expenditure of the German people must be reduced, *not only* by the amount of the reparation-taxes which they must pay out of their earnings, but also by a reduction in their gold-rate of earnings below what they would otherwise be. That is to say, there are two problems, and not—as those maintain who belittle the difficulties of transfer—one problem. Indeed, a short way of putting the case is this. The *Transfer* Problem consists in reducing the gold-rate of efficiency-earnings of the German factors of production sufficiently to enable them to increase their exports to an adequate aggregate total; the *Budgetary* Problem consists in extracting out of these reduced money-earnings a sufficient amount of reparation-taxes. The *Budgetary* Problem depends on the wealth and prosperity of the German people; the *Transfer* Problem on the competitive position of her industries on the international market.

(5) If x is the percentage by which German efficiency-wages in terms of gold have to be reduced in order to develop an excess of exports sufficient to pay for Reparations, x—we may say—is the measure of the gravity of the Transfer Problem.

So far we have no experience to guide us as to the value of x. Nor shall we, so long as the Reparations payments are provided by borrowing abroad. It is quite certain that this must come to an end some day. But when, no one can say. Meanwhile the new Committee, now sitting in Paris, has very little more

evidence to guide it as to the value of x than the Dawes Committee had five years ago.

In round figures German exports (including deliveries in kind) now stand at about £600,000,000 per annum. It looks—again in round figures—as if their excess over imports would have to increase by about £150,000,000 (perhaps even by £200,000,000) in order to balance the account without borrowing. Since German industry is largely dependent upon foreign sources for raw materials, this means a still larger increase in the gross figure of exports. The Agent-General concludes that Germany must look mainly to an increase in her exports of finished goods, which came to a total of £434,000,000 last year. Very roughly, therefore, Germany has to increase the value of her exports of finished goods by (say) 40 per cent. It is a formidable task.

Now, a reduction in the money-rate of efficiency-wages does not help her, and may injure her, in the following cases:

(i) Where the output, *e.g.* personal services or buildings, cannot be exported anyhow;

(ii) Where the world's demand for Germany's goods has an elasticity of less than unity, *i.e.* where a reduction in price stimulates demand less than in proportion, so that the greater quantity sells for a less aggregate sum;

(iii) Where Germany's foreign competitors fight to retain their present trade connections by reducing their own rates of wages *pari passu*;

(iv) Where Germany's foreign customers, reluctant to allow this more intensive competition with their home producers, meet it by raising their tariffs.

Moreover, if a reduction in price of 10 per cent. stimulates the volume of trade by 20 per cent., this does not increase the value of the exports by 20 per cent., but only by 8 per cent. ($1{\cdot}20 \times 90 = 108$).

Two points should be noted in passing. The reduction in real wages would be by no means so large as the reduction in money-wages, since the prices of home-goods for home consumption might be expected to fall.[1] It does not follow, however, that it would be any the easier to reduce money-wages, as we have found in this country in the last four years. On the other hand, such reduction in real wages as does occur may reduce efficiency, in which case a still greater reduction in money-wages per head would be necessary to secure a given reduction in efficiency-wages.

[1] For the reverse phenomenon see the figures quoted on the next page, from which it appears that the recent increase in money-wages has caused the cost of living to rise by more than half the amount of the increase in money-wages.

In the light of these considerations, what reduction in the money-rates of German wages will be required to increase German exports of finished goods by 40 per cent.? I do not venture to guess—except that I should expect it to be substantial. Only those who believe that the foreign demand for German exports is very elastic, so that a trifling reduction in German prices will do what is required, are justified in holding that the Transfer Problem is of no great significance apart from the Budgetary Problem.

My own view is that at a given time the economic structure of a country, in relation to the economic structures of its neighbours, permits of a certain "natural" level of exports, and that arbitrarily to effect a material alteration of this level by deliberate devices is extremely difficult. Historically, the volume of foreign investment has tended, I think, to adjust itself—at least to a certain extent—to the balance of trade, rather than the other way round, the former being the sensitive and the latter the insensitive factor. In the case of German Reparations, on the other hand, we are trying to fix the volume of foreign remittance and compel the balance of trade to adjust itself thereto. Those who see no difficulty in this—like those who saw no difficulty in Great Britain's return to the gold standard—are applying the theory of liquids to what is, if not a solid, at least a sticky mass with strong internal resistances.

Meanwhile—so far from a start having been made in reducing wages—the breathing space allowed by foreign borrowing has weakened Germany's competitive position by allowing German wages to rise again from the very depressed position which they occupied in 1924 after the Great Inflation. Mr. Parker Gilbert reckons that money-wages in Germany have risen by 40 per cent. since 1924 and real wages by 23 per cent., with the result that real-wages are now estimated at 8 per cent. higher than they were before the war.

II

Thus the Transfer Problem involves a reduction of x per cent. in the rates of gold-wages in Germany relatively to rates elsewhere, the value of x being determined by the factors outlined above. The next question is—How does the Dawes scheme propose to bring about this reduction of wages? The answer is that it makes almost no contribution to the solution of this problem.

The easiest method would be to allow the exchange value of the German mark to fall by the amount required to give the necessary bounty to exports and then to resist any agitation to

raise money-wages. But it is precisely this method which the Dawes scheme's device of "transfer protection" expressly forbids. Nor—as I read the Dawes scheme—is there any compulsory deflation when the "transfer protection" comes into play and the proceeds of the reparation-taxes accumulate within Germany, since these proceeds are to be invested in the short-loan market.

If, however, we suppose that, by agreement with the Reichsbank, deflation is enforced, how will this help? Only if, by curtailing the activity of business, it throws men out of work, so that, when a sufficient number of millions are out of work, they will then accept the requisite reduction of their money-wages. Whether this is politically and humanly feasible is another matter. Moreover, an attempt by foreign financiers to withdraw some part of their vast short-term loans to the German Money Market, estimated at £300,000,000, might be a by-product of a violent political and economic struggle aimed at the reduction of wages in the interests of foreign creditors.

The comfort of Germany's position under the Dawes scheme is this. The surplus, furnished by exports and foreign loans, will be duly remitted up to the amount of the annuity. But if in any year exports and foreign loans fail to furnish a sufficient surplus—and the mere fact that the annuity has been collected by taxation is no guarantee whatever that this surplus will be sufficient—then the Dawes scheme provides no effective means of pressure to increase the surplus. One may assume, therefore, that the German Government will be extraordinarily reluctant to forgo "transfer protection"—at any rate until there is more evidence than exists at present as to the amount of the surplus which exports left to themselves are likely to furnish.

But the retention of "transfer protection" may be desirable from other points of view than Germany's. Addressing the shareholders of Barclay's Bank last January, Mr. F. C. Goodenough said:—"It will be of great importance that the amount to be fixed should be not only acceptable to the Allies, but such as will obviate, as far as possible, forcing Germany into excessive industrial competition with the rest of the world through compelling her people to accept too low a standard of living." If Mr. Goodenough is right, some measure of "transfer protection" should be retained.

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A NEW STUDY OF BRITISH FOREIGN INVESTMENTS

Part I

My close association with the National Savings Movement is a sufficient explanation of my keen desire to arrive at some reliable statistics regarding any subject connected with the real savings of the nation. I have made many attempts in this connection to investigate the savings put into new loans, but have always been balked by the fact that, though there were available certain statistics of the amount of capital which this country lends abroad each year, there appeared to be no reliable figures of the amounts which were repaid to investors by the operation of sinking funds and on maturity of loans either at home or abroad. It is clear that sinking funds and maturity payments of our overseas investments must be deducted when attempting to estimate our yearly investment in this form of security. In regard to domestic issues the situation differs in that we ourselves provide the funds required for these purposes.

I therefore set out a year ago to try to make good what seemed to me to be a bad gap in our national statistics. This necessitated an inquiry into the amount of repayment in any one year of capital formerly lent both abroad and at home, in order to ascertain the receipts from the operation of sinking funds and maturity repayments of foreign and domestic loans. Owing to the very generous manner in which some sixty banks and several hundreds of companies have placed material at my disposal, I have been able to obtain what I believe to be, within the limits of the data available, statistics regarding these receipts. Apart from the effort of Sir G. Paish before the war to investigate our income from overseas investments, an attempt of this nature does not seem to have been made before. There were, therefore, no rules or preconceived procedure for carrying out the inquiry, and the present results are in the nature of pioneer results, and as such are to be regarded as a first approximation to the facts. It is hoped, if co-operation can be secured, to continue the investigation periodically, and to arrive at more accurate figures as better methods of conducting the inquiry are devised with experience gained.

It was only natural that when once the inquiry was started it led to a rather wider consideration of the problem than was originally intended, and the figures which follow and the deductions which are made from them cover this rather wider field, and will probably not escape criticism.

In the first instance, I had intended all material that is included in the following pages for my own personal use and that of the bankers and others who had so kindly helped me in my work, but since I spoke at the meeting of the City Savings Association, at the Mansion House in May 1928, where I referred to the provisional results of my investigations, I have received so many requests for complete details that I have decided to put the final figures in print, so that they should be available for the general public.

In collating these statistics I have had the advantage of the services of Mr. P. Holmes, B.Sc. (Econ.), a former student of the London School of Economics.

No doubt readers will find this report somewhat lengthy owing to the inclusion of the accumulation of additional material already mentioned. It seemed to me, however, that the full results of the work should be published, since they include in ready and collected form much which has up to now been scattered and much which is new.

Scope of the Inquiry

The inquiry undertaken covered the receipts in England from the operation of sinking funds and maturity payments of foreign Government, State and Municipal loans, and the capital arrangements of British companies operating abroad and at home for specified years, but did not include certain "private" receipts, *inter alia* those from private English companies operating abroad and from private or individual investment by inhabitants of the British Isles in foreign stocks and bonds. In brief, the statistics cover all the investments dealt with in the *Stock Exchange Official Intelligence* for 1926 with the following exceptions:

American Railway Stocks and Bonds.—These are excluded because the bulk of the holdings of British nationals were requisitioned by the British Treasury during the war to provide funds in America, and investigation has failed to disclose any appreciable post-war investment by British nationals in these securities. Total war-time requisitions were estimated at £623,000,000, which can be compared with an estimate made by Sir George Paish in

1907, that British nationals' investments in the American railway group totalled £600,000,000.

Financial Trust Stocks, etc.—These are excluded because their inclusion would lead to a double reckoning, as the operations of these companies usually take the form of investments either in the stocks and shares of British registered companies or in Government State or Municipal loans listed on the London Stock Exchange, and the income and capital repayment from both these sources are calculated separately for the borrowers concerned in this report.

Of course this exclusion also means that the income derived by such companies from what has already been characterised as "Private" investment abroad is not counted. In the case of financial trusts this may be appreciable, but owing to the impossibility of calculating separately the income from investments made in securities not listed on the Stock Exchange, exclusion was the only course open. It may also be noted that although subscriptions to the issues of such companies appear as new issues for home investment, in fact a considerable proportion is probably used for investment abroad. No reliable estimate of the sums so used is, however, available, and all that can be done is to bear this tendency in mind. Estimates tend to show that investment trusts invest practically two-thirds of their funds in overseas investments.

Additional Purposes of Inquiry

It rapidly became evident that while information on sinking fund and maturity repayments was the primary purpose of the inquiry, it would have to be accompanied by inquiries on other aspects of the subject, as, for example, the percentage of the various investments listed in the Stock Exchange Official Intelligence owned by British nationals so as to determine the British, and from the view-point of this inquiry the most important share in repayments by sinking funds or otherwise. Certain additional information has thus been obtained, the results of which have been included in the article.

Method

The method employed in collating the statistics was to request—

1. The London banking agents of foreign Governments, States, Municipalities, etc. to supply the following information :

(*a*) The total amount outstanding of each loan for which they were the agent.
(*b*) The total sinking fund or redemption payment made on each loan for the year 1926.
(*c*) The total interest paid on each loan during 1926, and
(*d*) The proportion of the total interest paid tax free in respect of holdings by foreign nationals.

The British and the foreign shares in redemption repayments either by the operation of sinking funds or by maturity repayments were taken to be in the same proportion as the interest payments.

2. British companies operating abroad to give the following information:

(*a*) The amount paid out by the company in capital redemption during 1926, and
(*b*) The proportion of this sum paid to persons resident in the United Kingdom.

British and Foreign Holdings of Securities Listed on the London Stock Exchange

Dividing the securities examined into groups, as is done in the *Official Intelligence*, and applying the information obtained by these methods for 1926, the following table is obtained showing the proportion of the British holdings in the various groups of overseas investments:

Table I

Proportion in 1926 of British Holdings of Total Outstanding Loans or Redeemable Capital in the Undermentioned Groups of Securities listed on the London Stock Exchange.

Colonial and Prov. Govts.	82%	Financial and Land	76%
Indian and Col. Corptns.	80	Gas	99
Foreign Corporations	83	Iron, Coal and Steel	48
Foreign Governments	75	Mines	82
Indian Railways	83	Nitrate	99
Foreign Railways	86	Oil	96
Rlys. in Brit. Possns.	84	Rubber	93
Banks and Discount Coys.	41	Shipping	99
Canals and Docks	96	Tea and Coffee	97
Comm. and Industrial (For.)	68	Telegraphs and Telephones	86
Ditto (Br.)	99	Tramways and Omnibus	98
Electric Light	94	Waterworks	99

The results show an average British holding in all the securities examined of 79 per cent. for 1926.

Part II

Results

Sinking Fund Receipts.—The results of the investigations into receipts from repayments, taking the term to include payments resulting from the operating of sinking funds and from maturities, are shown in the following tables, which give the actual receipts for 1926 from sinking funds and maturities, of securities listed on the London Stock Exchange, with a division of the sums into the amount received by British and by foreign holders of the securities. In the following tables "British Sinking Fund" means remittances to this country which go to swell the income of persons resident here, while the term "Foreign

Table II

Receipts from Sinking Fund and Maturity payments on Securities of Foreign Governments and Companies operating abroad, listed on the London Stock Exchange.

(£1,000.)

1926.

Group.	British.			Foreign Sinking Funds and Maturity Repayments.
	Sinking Fund and Maturity Repayments.	Redeemable Capital.	Rate of Repayment, %.	
Colonial and Prov. Govts.	6,221	594,248	1·0	1,365
Indian and Col. Corptns.	630	82,262	·8	157
Foreign Corporations	815	32,816	2·5	166
Foreign Governments	6,287	359,161	1·8	2,095
Indian Railways	1,890	91,745	2·1	387
Foreign Railways	1,970	230,409	·9	320
Rlys. in Brit. Possns.	906	159,565	·6	172
Banks and Discount Coys.	26	4,669	·6	37
Canals and Docks	130	6,342	2·0	5
Comm. and Industrial (Br.)	501	22,044	2·3	4
Ditto (For.)	823	74,122	1·1	388
Electric Light and Power	307	8,974	3·4	20
Financial and Land	892	22,943	3·9	288
Gas	157	2,188	7·2	1
Iron, Coal and Steel	229	30,570	·7	219
Mines	1,909	7,486	25·5	414
Nitrate	641	8,044	8·0	—
Oil	1,378	7,789	17·7	62
Rubber	559	6,120	9·1	40
Shipping	40	4,247	·9	—
Tea and Coffee	115	2,152	5·3	4
Telegraphs and Telephones	121	23,334	·5	20
Tramways and Omnibuses	410	40,550	1·0	9
Waterworks	53	7,805	·7	—
Total	27,010	1,829,585		6,203

Sinking Fund" covers remittances to this country which may swell the income from Overseas if re-invested here but is remitted on account of securities listed here, but owned by persons resident abroad and therefore liable to be withdrawn. "Redeemable Capital" consists of the bonds of Governments and Municipalities, etc., the debentures and redeemable preference shares of companies.

TABLE III

Receipts from Sinking Fund and Maturity Payments on Securities of Foreign Governments and Companies operating abroad, listed on the London Stock Exchange.

(£1,000.)
1927.

Group.	British.			Foreign Sinking Funds and Maturity Repayments.
	Sinking Fund and Maturity Repayments.	Redeemable Capital.	Rate of Repayment, %.	
Colonial and Prov. Govts.	16,105	620,445	2·6	3,383
Indian and Col. Corptns.	647	82,855	·8	156
Foreign Corporations	630	39,476	1·6	164
Foreign Governments	6,816	367,161	1·9	2,182
Indian Railways	1,446	89,352	1·6	289
Foreign Railways	1,120	229,830	·5	168
Rlys. in Brit. Possns.	21	156,971	·01	4
Banks and Discount Coys.	26	4,643	·6	37
Canals and Docks	130	4,839	2·7	5
Comm. and Industrial (Br.)	879	22,532	3·9	9
Ditto (For.)	859	71,319	1·2	393
Electric Light and Power	398	8,988	4·4	32
Financial and Land	940	23,745	4·0	273
Gas	94	1,988	4·7	1
Iron, Coal and Steel	176	28,731	6·1	192
Mines	707	8,030	8·8	149
Nitrate	651	7,273	9·0	—
Oil	1,361	8,168	16·7	69
Rubber	114	6,643	1·7	8
Shipping	98	4,082	2·4	—
Tea and Coffee	31	2,709	1·1	1
Telegraphs and Telephones	296	23,235	1·3	48
Tramways and Omnibuses	410	39,105	1·0	9
Waterworks	53	7,942	·7	—
Total	34,008	1,860,062		7,572

The 1927 figures of sinking fund receipts are adjusted from those of 1926, the year of investigation, and are added for purposes of comparison.

Taking the amounts of sinking fund and maturity receipts on account of persons resident here in 1926 for each group, it will be noticed that receipts from the first four groups or Governments, Municipalities, etc. contributed nearly one-half of the

whole, Colonial and Provincial Governments alone giving nearly one-quarter. In 1927, Governmental institutions provided about two-thirds and Colonial and Provincial Governments nearly one-half of the total. Most of the other groups, both in 1926 and 1927, show very little change in absolute amounts, so that the chief variable factor seems to be that of Colonial and Provincial Government receipts. The reason for this is that the principal part of the receipts from this group is composed of maturities of securities falling due for payment. As such maturities are naturally haphazard, compared with the operations of sinking funds, the total receipts from the groups are thus bound to be rather irregular from year to year.

The annual rate of repayment in 1926 shows considerable variation between 0·5 per cent. in Telegraphs and Telephones and 25·5 per cent. in Mines. The higher rate in the Mining group is due to maturities in this group. In 1926, of total receipts on British account of £1,909,000 for Mines, £1,423,000 was paid as redemption at maturity; and if this sum is deducted from the total receipts in that year, the rate of repayment falls to 6·5 per cent. Maturities seem usually to form a large part of the repayments in this group.

The Financial and Land, Gas, and Rubber Company groups also exhibit the same tendency.

The group of Foreign Stocks and Bonds may be taken as an example of a group where the bulk of the receipts consist principally of annual sinking fund payments, as the following table shows:

TABLE IV

Receipts for British Account from Sinking Fund payments and Maturity Redemptions of Foreign Stocks and Bonds only.

(£1,000.)

	1926.	1927.	1928.
Maturities	—	73	—
Sinking Fund Repayments	6,287	6,743	7,124
Total	6,290	6,816	7,124

Thus in this group maturities are very small, as can be seen, and the bulk of receipts comes from the operation of sinking funds in contrast to the position of receipts from all the groups combined. In the latter case, in the 1926 total of receipts for British account, maturities at £11,010,000 accounted for 40·8 per cent. of the total, and in 1927 at £17,227,000 for 50·7 per cent.

Sinking Fund Receipts in Future.—By making an estimate of the future British share of receipts from the operation of sinking funds on recent overseas issues and adding to this the receipts from maturities on all existing loans, it is possible to construct a table which by including the annual repayments by the operation of sinking funds already calculated for 1927 will show an estimate of the future British receipts on account of repayment of overseas investments. This is done in Table V. There are certain limitations to the resultant estimate, since it cannot take account of any future loans issued between 1929 and 1931. On this point, however, it may be said that—

(*a*) Any such loans will not mature before 1931, and so will not add to the heading "Maturities."

(*b*) Annual receipts from such loans by the operation of cumulative sinking funds will be small in the first years of the loans.

Finally, it should be noted that the sum allocated under "Annual Repayments already calculated" is the estimate carried forward for 1927, and does not allow for falling off in the amount due to loans being finally redeemed between 1928 and 1931, nor for the automatic increase in sinking fund receipts where an accumulative Sinking Fund is in operation due to interest savings. To some extent, however, these two factors tend to neutralise one another.

TABLE V

(£1,000.)

	1928.	1929.	1930.	1931.
Maturities	5,208	36,369	8,221	19,373
New Annual Repayments	1,470	2,054	2,176	2,233
Annual Repayments already calculated	16,781	16,781	16,781	16,781
Total	23,459	55,204	27,178	38,387

The large amount due in 1929 comes mainly from Colonial Government maturities, and in 1931 from Government maturities.

Home Sinking Fund Receipts.—The figures so far examined relate to the capital operations of foreign Governments, etc., and companies operating abroad. It is now necessary to obtain similar results for companies operating at home. Below are given statistics based on information provided by British companies operating at home. From the point of view of the National Income these receipts are, of course, not in the same category as receipts on overseas investments, but they do constitute, as do

allocations to reserves, moneys which tend to be reinvested and can thus be considered as a specialised source of savings.

Table VI

Receipts from the Operation of Sinking Funds and Maturities of Domestic Issues and of British Companies operating at Home.

(£1,000.)

1926.

Group.	British.			Foreign Sinking Funds and Maturity Repayments.
	Sinking Fund and Maturity Repayments.	Redeemable Capital.	Rate of Repayment, %.	
Corporation and County	3,247	318,125	1·0	114
Public Boards	595	103,618	·6	21
Railways	116	284,159	·04	4
Breweries	912	63,718	1·4	32
Canals and Docks	16	1,877	·9	—
Commercial and Industrial	4,080	137,114	3·0	115
Electric Light and Power	632	29,537	2·1	22
Gas	101	5,523	1·8	3
Insurance	122	10,385	1·2	4
Iron, Coal and Steel	763	64,701	1·2	19
Shipping	266	48,570	·5	9
Tramways and Omnibus	163	11,414	1·4	6
Waterworks	3	2,904	·1	—
Total	11,016			349

Table VII

Receipts from the Operation of Sinking Funds and Maturities of Domestic Issues and of British Companies operating at Home.

(£1,000.)

1927.

Group.	British			Foreign Sinking Funds and Maturity Repayments.
	Sinking Fund and Maturity Repayments.	Redeemable Capital.	Rate of Repayment, %.	
Corporation and County	5,044	345,676	1·5	156
Public Boards	377	113,289	·3	11
Railways	—	285,039	—	—
Breweries	579	62,906	·9	18
Canals and Docks	16	2,789	·6	—
Commercial and Industrial	1,732	151,454	1·1	48
Electric Light and Power	442	32,746	1·3	12
Gas	242	6,052	4·0	6
Insurance	122	11,263	1·1	3
Iron, Coal and Steel	763	67,007	1·1	24
Shipping	473	48,970	1·0	15
Tramways and Omnibus	173	12,036	1·4	6
Waterworks	—	2,900	—	—
Total	9,963	1,142,127		299

To these receipts there must be added the sinking fund applied annually to the redemption of British funds, etc. Owing to abnormal conditions in 1926 the figures to be added for that year would not give a fair result. In 1927 £65,000,000 was budgeted for sinking fund, so that the total repayment receipts on account of British-owned capital invested at home may be put around £75,000,000, to which falls to be added the items given in the Finance Accounts of the United Kingdom 1927–28 for reduction of National Debt such as "Suez Canal Drawn Bonds," "War Advances Repayments," etc., making a total figure around £80,000,000 less £5,000,000 paid to U.S.A. in reduction of our debt.

The figures given below show how much the sinking fund receipts on British account from domestic investment may be expected to amount to during 1928 to 1931, leaving out receipts on account of British funds, etc.

TABLE VIII

(£1,000.)

	1928.	1929.	1930.	1931.
Maturities	3,350	12,830	4,756	5,336
Annual Repayments . . .	341	852	1,189	1,474
Annual Repayments from 1927 [1] .	5,848	5,848	5,848	5,848
Total	9,539	19,530	11,793	12,658

[1] Subject to same qualifications as for estimate of future receipts from overseas loans, etc. (*q.v.*).

Total Overseas Capital Investments and Interest Receipts thereon.—The results obtained regarding interest receipts in 1926 from overseas investments are tabulated below. They are, of course, not repayments of capital as are sinking fund and maturity receipts, but the position in regard to them is that they do increase *cæteris paribus* the yearly national income and thus enhance the possibilities of savings. From the main point of investigation they are not of first importance, but are added merely for information.

Tables IX and X given below show the nominal British-owned portion of loans and paid-up capital invested abroad, and the amount paid as interest thereon for the years 1926 and 1927.

Net Income.—The figures of income in Tables IX and X are all gross figures, and corrections must be made for the various intergovernmental payments on account of interest on loans, reparations, etc., together with the interest payable on foreign-owned investments in the United Kingdom.

From a study of the Finance Accounts of the United Kingdom

TABLE IX

Gross Income from British-owned Capital Invested Abroad.

(£1,000.)

1926.

Group.	Income.	Nominal Amount of Loan & Share Capital.	Rate %.
Colonial and Prov. Govts.	31,561	594,248	5·3
Indian and Col. Corptns.	4,793	82,262	5·8
Foreign Corporations	1,539	32,816	4·7
Foreign Stocks and Bonds	15,998	359,161	4·4
Indian Railways	7,271	116,444	6·2
Rlys. in Brit. Possns.	15,103	276,201	5·5
Foreign Railways	24,320	483,999	5·0
Banks and Discount Cos.	15,796	143,609	11·0
Canals and Docks	651	20,160	3·2
Commercial and Industrial (For.)	30,328	340,118	8·9
Ditto. (Br.)	6,313	92,971	6·8
Electric Lighting and Power	21,572	294,934	7·3
Financial and Land	8,359	110,108	7·6
Gas	776	25,015	3·1
Iron, Coal and Steel	7,845	134,427	5·8
Mines	12,985	118,517	11·0
Nitrate	1,696	18,171	9·3
Oil	36,619	222,386	16·5
Rubber	31,988	156,827	20·4
Shipping	692	21,288	3·3
Tea and Coffee	7,601	36,162	21·0
Telegraphs and Telephones	7,147	91,844	7·8
Tramways and Omnibus	5,800	105,964	5·6
Waterworks	1,408	18,525	7·6
Total	298,191	3,896,157	

for 1927–28 it appears that on the first item there would be a credit balance, including reparations of about £5,000,000 for 1927. An estimate of interest on foreign-owned investments in the United Kingdom for 1927, made by applying the percentages of foreign holdings already obtained to the figures concerned, would put this item at about £14,000,000.

On balance, therefore, there is a net debit to be taken from the gross income figures of between £8,000,000 and £10,000,000, leaving a result for net income from this category of overseas investment of between £289,000,000 and £291,000,000 for 1927.

This figure, of course, is even then not final, since it cannot allow for such factors, not susceptible to estimate, as *inter alia* the earnings of foreign balances in the London market, the profits of foreign companies operating factories in England, and balances held by British banks abroad, together with their short loans abroad. Moreover, it does not, of course, represent the net income of the country, for a calculation of which banking commissions and earnings of our shipping would have to be taken into account among other items.

TABLE X

Gross Income from British-owned Capital Invested Abroad.

(£1,000.)

1927.

Group.	Income.	Nominal Amount of Loan & Share Capital.	Rate
Colonial and Prov. Govts.	32,883	620,445	5·3
Indian and Col. Corptns. .	4,805	82,855	5·8
Foreign Corporations .	1,885	39,476	4·8
Foreign Stocks and Bonds.	16,155	367,161	4·4
Indian Railways . .	7,102	114,554	6·2
Rlys. in Brit. Possns. .	14,871	275,389	5·4
Foreign Railways . .	23,992	489,642	4·9
Banks and Discount Cos.	15,785	143,583	11·0
Canals and Docks . .	644	16,130	4·0
Commercial and Industrial (For	30,195	339,617	8·9
Ditto (Br.) . . .	7,253	97,968	7·4
Electric Lighting and Power	23,994	299,627	8·0
Financial and Land . .	8,970	118,727	7·6
Gas	745	24,858	3·0
Iron, Coal and Steel .	6,595	130,598	5·0
Mines	11,932	127,471	9·4
Nitrate	1,262	16,530	7·6
Oil	35,739	233,374	15·3
Rubber	30,960	170,353	18·2
Shipping	752	21,488	3·5
Tea and Coffee . .	9,642	45,918	21·0
Telegraphs and Telephone	7,156	92,943	7·7
Tramways and Omnibus .	4,424	102,909	4·3
Waterworks	1,420	18,472	7·7
Total	299,161	3,990,088	

Distribution of Overseas Capital Investments.—From Tables IX and X it appears that over one-quarter of our capital invested abroad is in the form of loans to Governments and Corporations as distinguished from shareholdings in and loans to industrial undertakings. Only about one-sixth of our total income, however, is derived from this quarter. Of this proportion roughly 63 per cent. is invested in the Dominions and Colonies, which is a reflection of the influence of the Trustee Act. Loans to Colonial Governments of course are used mainly for reproductive purposes and augment the demand for capital goods from this country, while it is certain that even without the Trustee Act there would have been large investments in the Colonies. The results shown, however, raise the question whether the Trustee Act has not given an undue impetus to the export of capital, thus making it dearer for home industries to borrow.

Rate of Remuneration of Overseas Capital Investments.—From Tables IX and X it is seen that Government, Municipal and Railway investments account for roughly one-half of our capital and yield about one-third of our income.

TABLE XI

British Capital invested in Indian, Colonial and Foreign Loans and Companies and the Income derived therefrom in 1907–8.

(£1,000.)

	Income.	Capital.	Rate of Interest, %.
Indian Government Loans	5,017	156,369	3·21
Colonial and Prov. Govts.	13,933	375,190	3·71
Foreign Govt. Loans	8,338	167,000	4·75
Colonial and Foreign Municipalities	2,650	58,901	4·5
Indian Railways	4,774	123,341	3·87
Colonial Railways	7,598	188,950	4·0
American Railways	27,000	600,000	4·5
Foreign Railways	13,467	286,700	4·7
Banks	7,353	54,101	13·6
Breweries	732	17,205	4·2
Canals and Docks	1,174	5,974	19·6
Commercial and Industrial	4,863	77,610	6·3
Electric Light	321	7,686	4·2
Financial and Land	6,233	187,027	3·3
Gas	1,194	16,419	7·3
Mines: Iron and Coal	505	12,956	3·9
Copper	5,074	38,525	13·2
Diamonds	4,468	14,646	30·5
Gold	14,947	161,178	9·3
Silver	843	10,513	8·0
Tin	308	5,568	5·5
Nitrate	1,637	10,903	15·0
Oil	642	14,268	4·5
Rubber	446	5,433	8·2
Tea and Coffee	1,794	21,399	8·4
Telegraphs and Telephones	2,233	34,235	6·5
Tramways	1,809	35,289	5·1
Waterworks	438	6,352	6·9
Total	139,791	2,693,738	5·2

Comparing 1926 with 1927, it will be noticed that our capital invested overseas increased by about £94 million, whilst the income from the investments only increased by approximately £1 million. This was due to a falling off in the income from the Oil and Rubber groups of investments, and in part probably to the fact that the new capital invested had not become fully productive.

Sir G. Paish's Estimate of Overseas Investment and Income therefrom.—Table XI reproduces an estimate made by Sir George Paish in 1907 of our Overseas Investments. A later estimate was made in 1911, in which the capital invested overseas was placed at £3,500 million, and the income therefrom between £175 and £190 million, but since the figures are not in a convenient form, the earlier estimate has been used.

This and the present estimates are not on comparable bases owing to differences in methods employed, but, bearing this

in mind and allowing for changes in the value of money according to the *Statist* Index of Wholesale Prices, the 1927 figure of capital invested overseas is less than that of 1907 at 1927 values by roughly £118,000,000, and is still smaller when compared with the 1914 figure, which was estimated in the *Board of Trade Journal* in March 1923 at £4,000 million at 1914 prices. The 1927 figure of gross income received is, however, larger than that of 1907 in terms of 1927 values by roughly £86,000,000.

Changes in Direction of Overseas Investment.—In the 1907 estimate the capital invested in Governments and Municipalities is nearer one-quarter than one-third of the whole, and the income is a little less than one-quarter. The Government, Municipality and Railway groups provided in 1907 about three-quarters of the whole of our capital and nearly two-thirds of our income, as compared with one-half of the capital and one-third of the income in 1927. Overseas investments since 1907, therefore, have apparently changed their constitution and have a larger proportion of industrial investments.

The figures of the two estimates show changes in the earnings of our investments during the last twenty years. The Oil and Rubber groups, for example, show an increased earning on their capital from 4·5 per cent. and 8·2 per cent. respectively to 15·3 per cent. and 18·2 per cent., although 1927 was an exceptional year for oil companies. Electric Light capital earnings rose from 4·2 per cent. to 8 per cent., but, on the other hand, capital in Canals and Docks shows a decline in earnings from 19·6 per cent. to 4·0 per cent., and in Nitrate companies from 15 per cent. to 7·6 per cent., due probably to the rise of the synthetic industry.

CONCLUSIONS

It now becomes necessary to attempt to arrive at some conclusion regarding the adequacy of that part of the nation's new annual savings expressed in the figures of new capital issues for each year.

For this purpose the receipts from the operation of sinking funds and maturity repayments on our overseas investments may be regarded as repayments of capital assisting subscription to such issues without effort on our part, or in other words may be looked upon as "automatic" savings. The corresponding position of domestic receipts of a similar character is that they are a definite form of collective savings, and the excess of new issues over both such figures can alone be regarded in this part of the nation's savings as the result of *individual* desire to save.

One method of judging the adequacy of this branch of saving is to compare the individual saving, as already defined, in the years investigated with the corresponding figure before the war. Owing to the absence of the necessary data regarding repayments before the war, certain assumptions are necessary for such a comparison. These are:

1. That the rate of repayment of capital invested overseas was the same before the war as it has been ascertained to be by the present investigation for 1926 and 1927.
2. That foreign subscriptions to new issues before the war may be taken to be in the same proportion to total subscriptions as the present-day figures. The present percentage of foreign subscriptions has been ascertained from issuing houses and leaves out of account applications made by residents here on behalf of foreign clients which cannot be estimated. The omission, however, does not affect the general argument.

On these assumptions a figure of receipts from the operations of sinking funds in 1913 is obtained, showing that such payments from overseas on British account may be taken at about £11,000,000, while the foreign subscriptions to new capital issues for overseas may be put at £3,000,000 for 1913 and £2,300,000 for 1927.

The individual saving in this branch of savings may then be calculated, in accordance with the definition already given, as follows:

(£1,000.)

		1913.		1927.
Total capital issues[1]: Home		£50,709		£164,321
Overseas		197,528		152,991
		248,237		317,312
Deduct money "automatically" available for subscription:				
1. Foreign subscriptions to new overseas issues	£3,000		£2,300	
2. Sinking Funds:				
(a) Government[2]	7,600		65,000	
(b) Domestic	3,500		5,850	
(c) Overseas Capital (British portion)	11,000		17,000	
		25,100		90,150
"New" money subscribed		£223,137		£227,162

[1] Taken from *Statist* Jubilee No. 1928, where comparable figures for both years are given which exclude refunding operations, etc.

[2] Included and considered as a collective saving from taxation as distinct from individual saving. It is recognised that not necessarily all these sums went to British nationals as there was probably some foreign holding. There are no data available regarding this percentage, however, and the only course is to work on the figures taken.

These figures take no account of British subscriptions to foreign issues owing to the impossibility of obtaining a reliable estimate of such investment.

The resultant figures of "new" money invested are not comparable owing to changes in the price level. Adjusting according to the *Statist* index-number of wholesale prices the revised figures at 1927 values are:

1913	£320,270,000
1927	227,162,000

We were thus saving about £93 millions less in 1927 at 1927 values than in 1913 in this particular individual part of our saving. It is not my purpose to comment here on the reasons for this result, but merely to point out the fact that we are individually making available for investment at 1927 values only slightly over two-thirds of the amount we should to maintain the 1913 rate.

Moreover, if the overseas investment position alone is taken after deducting sinking fund receipts from the figures of new issues, excluding refunding operations, the figures work out as follows:

1913 (at 1927 values) . . .	£263,400,000
1927	133,700,000

In other words, on the overseas investment position in terms of 1927 values we are individually providing only about half of what we did in 1913. More accurate comparison than this is not possible owing to the fact that the various figures are not on exactly comparable bases and could not be so established without inordinate difficulty, but the general result is sufficient and errors in the estimates would not upset it.

It is realised, of course, that other forms of savings at home, such as housing, roads, savings certificates, etc., have increased since before the war, but, as the Colwyn Committee pointed out, on balance there has been a decided falling off in the volume of savings, while the possible effects of the falling off of the amount of new money invested overseas on our trade will be evident to anyone.

Finally, one has to allow for changes in population and national income in relation to savings. The *per capita* figures of "new" money for investment in the securities dealt with in this article at home and abroad in terms of 1927 values are:

1913	£7·5
1927	5·0

while Professor Bowley and Sir Josiah Stamp have estimated that even in 1924 there had been no diminution in our national income. These considerations enforce still further the moral to be drawn from the figures and facts just quoted.

I wish to reiterate that this article attempts to deal with a particular type of saving and investment only, and is limited to those stocks and shares which are dealt with in the *Stock Exchange Official Intelligence.*

ROBERT KINDERSLEY

THE ECONOMIC EFFECTS OF VARIATIONS OF HOURS OF LABOUR [1]

I

THE number of hours a man works is not a matter which is determined independently of other circumstances. It depends partly on habit, partly on technical or legal necessity, partly on the relative pulls of product, production and leisure, and these in turn are partly dependent on it. To exhibit the form of this dependence under the complex conditions of industrial civilisation is one of the chief problems of the analysis of economic equilibrium, but it is not a problem with which I wish to deal in this paper.[2] My object here is of rather a different order. Assuming that a variation of hours takes place, I wish to inquire what other changes we should expect to be associated with it. For the purposes of this analysis, that is to say, the change in the length of the working day is to be regarded as the independent variable. What I discuss is not what causes bring it about, but what consequences follow from it. From a philosophical point of view, no doubt, this procedure is more arbitrary than the analysis of the conditions of equilibrium, but from the point of view of social policy it has much to recommend it. The practical problem which we have to decide at any given moment is the problem whether our present distribution of time between work and leisure is satisfactory; and although the final solution, involving as it does an appeal to subjective standards of worth, is outside the scope of scientific inquiry, yet a precise knowledge of the objective consequences of any variation is of material assistance in arriving at a solution. Our valuations are only valid by accident if they are not based on a knowledge of fact. What I have to say is not new. The materials for a solution of this problem are to be found in all reputable handbooks of economic principles; but they are not often deliberately collated with this particular object in view, and in popular discussion they

[1] A Paper read before Section F of the British Association at Glasgow, September, 1928.

[2] The matter is dealt with in Sir Sydney Chapman's article on "Hours of Labour" in this JOURNAL, for September 1909.

are apt to be ignored. In view, therefore, of the practical urgency of clear thinking on these matters, it has seemed to me to be worth while, even at the risk of repeating things which are familiar, attempting to combine them in one general survey.

II

I turn first to the connection between hours and output—at once the most simple and the most fundamental of the relations we have to examine.

Here fortunately it is possible to be brief. The days are gone when it was necessary to combat the naïve assumption that the connection between hours and output is one of direct variation, that it is necessarily true that a lengthening of the working day increases output and a curtailment diminishes it. Systematic study of the conditions of efficiency has abundantly vindicated the view, which after all is not very sophisticated, that, if we wish to maximise daily output, just as it is possible to work too little, so it is also possible to work too much. Of course it is true that if we start from the beginning of any given job and measure onwards throughout a single day, so long as we continue to work at all without spoiling what we are doing, we add something to the product. But to argue from this to the conclusion that the longer the average working day, the greater the average daily output, is completely to beg the question at issue. For the human frame is not inexhaustible, and the greater part of the work of the world must be done from day to day and not accomplished in isolated spurts. And this means that if a man continually works beyond a certain point, the intensity of his work will be reduced to such an extent that the gain in longer hours will be more than offset by the loss in hourly output, so that if he had worked less his average output would have been greater.[1] This is true of all continuous occupations. A great number of observations have proved it to be true for many kinds of manual labour,[2] and although in the case of mental work of any complexity quantitative measurement is out of the question, there can be no doubt that in a broad way it is true here likewise. We all know the hacks who are always dull because they are always overworking.

[1] For convenience of exposition, the above argument has been stated in terms of days and hours, but of course there is no special sanctity about these periods, and it is not difficult to state the theory in terms which are of greater generality.

[2] See Sargant Florence, *Economics of Fatigue and Unrest*, for an excellent account of this matter.

If, therefore, we are to predict the effect of a given variation in hours we must conceive of it in relation to a working day of maximum productiveness. This day, of course, will vary from man to man and from industry to industry. It will vary in the same industry with variations of technique, distribution of hours within the day and over longer periods, and general working conditions. It will vary, too—and this is a point which has not been sufficiently emphasised—with the length of time over which the maximisation of output is contemplated. A length of day that would maximise output for a month or a year would not necessarily bring it to a maximum if a period of many years was contemplated. A length of day that maximised output during a short war would not necessarily maximise it during a long peace. But if we bear in mind the essential relativity of the conception, we may legitimately speak of a point (or points) of maximum productiveness in connection with a given variation. So long as the variation is towards this point, output will be increased; so long as it is away from it, it will be diminished. That is, output will be increased if a working day longer than the day of maximum productiveness is shortened, or if a day shorter than the day of maximum productiveness is lengthened. It will be diminished by converse variations. How much it will be increased or diminished will depend on the extent of the change and the rates at which productiveness falls away on either side of the maximum—a matter which again will vary with varying circumstances.

One warning only is needed in this connection. Generalisations of the sort I have been making—of the sort I shall be making throughout this paper—are only statements of tendencies. They are only statements of what will happen if other things remain the same. And this means that, if other things are not equal, such statements cannot be refuted by a mere appeal to facts, nor can they necessarily be proved by facts which appear to support them. During the nineteenth century, for instance, the average duration of the working day was considerably curtailed. At the same time there was a fairly continuous increase in output, and from this it is sometimes argued that the length of day actually worked at the outset was beyond the point of maximum productiveness. No deduction could be more illegitimate. A general increase in productivity may make the yield to a shorter day after the change greater than the yield of a longer day before, even if without the reduction output would have been still greater—and of course during the nineteenth century productivity in

general was increasing. Other considerations may lead us to believe that hours of labour were excessively long during the earlier part of this period, but from crude statistics of changes in output it is as illegitimate to argue that the curtailment of the working day was the cause of the increase, as that, if the day had not been reduced, productivity would have increased still faster.

III

That is all I have to say at present on variations of hours and output. I now proceed to deal with the opposite aspect of the matter, the relation between hours and incomes—a subtler connection demanding greater delicacy of treatment.

So far as men consume the product of their own labour, of course, income and output are identical. Robinson Crusoe living alone on his island lives exclusively on the product of his labour. So does human society conceived as a whole. External circumstances being given, what is got in the form of produce depends on what is given in the form of effort. In both cases, therefore, there is nothing to add to the simple generalisations which have been made already.

But when we come to consider not individuals working on their own or society conceived as an aggregate, but individuals and groups of individuals working within society and exchanging their products for the products of other individuals and groups of individuals, matters are not so simple. For in such circumstances what men work for is not their own output but the power to acquire by way of exchange little bits of other people's output. That is to say, what they work for is not their own output but the value of their output. Thus we have to examine, not only the effect of variations of hours on output, but also the effect of such variations of output on the income available from its disposal, and on the incomes of those who purchase it. To do this it will be convenient to proceed by stages. First, we may inquire as to variations on the part of single individuals, then as to variations on the part of single industries, then as to variations on the part of a whole society, and finally as to variations on the part of geographical groups or "nations."

IV

I turn first to variations on the part of single individuals.

This is the simplest case and need not detain us long. The fact of exchange introduces no important complications. The income of society (which, as we have just seen, *is* its output) will

obviously fluctuate with individual output, and in the great majority of cases so will individual income. For so far as the great majority of people are concerned, the value per unit of the work they do is a fixed fact which is unaffected by variations in their individual output. The total work they do is only a tiny fraction of the total supply of the work they are supplying. The effects on value per unit of fractional variations of this tiny fraction, therefore, are so small that they may be disregarded. In a small minority of cases this might not be so—there are certain British etchers, who, I am told, maintain the value of their work by limiting its quantity—in these cases what I shall be saying about group variation will be applicable. But in most markets individual income will tend to fluctuate with quantitative variations in individual work. It is obvious that it must be so in the case of independent producers. It is no less clear in the case of contract wages paid on a piece-work basis. In the case of wages paid on a time-rate basis and weekly, monthly and yearly salaries, disparities may arise, but except where economic friction is very great, they are not likely to persist.

V

I turn next to variations on the part of all the producers engaged in any one line of industry, a question looming larger in public discussions of industrial policy. Suppose all the producers of, say, coal decide to vary their working day, what results are to be expected?

Here matters become more complicated. As before, we may expect the income of society to fluctuate in the same direction as output, but in the absence of further knowledge with regard to the disposition of other members of society and the technical conditions of production, we are no longer justified in predicting the same of the incomes of the producers in question. For now, by hypothesis, the total volume of supply is fluctuating appreciably, and therefore value per unit must be affected—and, of course, must be affected inversely. But until we know *how* it is affected—at what rate it falls for an increase of supply or rises for a diminution—we cannot say how the incomes of the producers in question are going to fluctuate: 9,000 units at 10*d.* (90,000*d.*) are worth more than 8,000 units at 11*d.* (88,000*d.*), but 9,000 units at 6*d.* (54,000*d.*) are worth considerably less.

It is in tackling problems of this sort that we become conscious of the immense debt that we owe to the Marshallian analysis of demand. For, armed with the concept of elasticity, we can assert

quite simply that, in the circumstances we are discussing, if the elasticity of demand is greater than unity—in non-technical terms if the change in amount demanded is more than proportionate to the change in price—incomes will vary directly with output; if it is less, they will vary inversely. It is important, of course, to distinguish between elasticity of demand for the ultimate product and elasticity of demand for the labour that helps to produce it. In cases of simple production with free or low-priced raw materials and no complicated organisation or capital equipment, the divergence between the two may not be considerable. But if expensive raw materials and extensive capital equipment are involved, the divergence may be very important. The elasticity of demand for the product will, of course, be one of the factors governing the conditions of demand for labour. But so will the way the prices of the other factors employed react to changes in the scale of output, and the technical possibilities of varying the proportions in which they co-operate. Overhead costs may be increased or diminished, raw materials may become more or less expensive, different technical combinations may become more expedient, and so on. It would be possible to spend much time unravelling the subtleties of these relations;[1] but in the last resort, here, as in the simple breakfast-table examples of the elementary text-books, we may imagine a scale of prices at which given quantities of work will be taken, and the rate at which this change will be all-important in determining the outcome for the wage-earners of any given variation of hours of labour.

Now if wage-rates are freely adjustable and the market for labour is reasonably competitive, that is the end of the matter. Wage-earners whose labour is in relatively elastic demand will increase their income by increasing their output, and diminish their income by diminishing their output. Wage-earners whose labour is in relatively inelastic demand will increase their income by curtailing output, and diminish their income by increasing output. *So long as the group remains intact*—I shall return to this assumption later—and no changes in the technique of production take place, the effects of variation here exhaust themselves in variation of incomes. 24300.

But under modern conditions matters are not quite so simple, even if we do not waive the hypothesis of immobility. For wage-rates seldom have the complete flexibility postulated by these generalisations. Rather they are usually fixed in advance by

[1] Cp. Marshall, *Principles* (8th Ed.), Notes XIV and XV of the Mathematical Appendix and Chapter VI, Book V.

the same apparatus of collective bargaining which is responsible for the regulation of hours. And this means that, until the contract is revised, wages themselves are rigid. By fixing the rate and fixing the length of the working day the daily wage is itself predetermined.[1]

But this does *not* mean that the conditions of demand lose their governing importance. The general disposition of the market to buy, as exhibited in the demand schedules we have been discussing, does not change when the price prevailing ceases to be flexible. All that happens is that the effects of variations of supply exhibit themselves in a different fashion. Instead of the price accommodating itself to the given supply so that the actual quantity demanded clears the market, the amount demanded accommodates itself to the price that is fixed. If this happens to be the price that will clear the market, then all is as if wage-rates had been flexible. If it is less, then unusual profits are made until more labourers are drawn into employment. If it is more, then some labour is not purchased, and, since hours are fixed, this means that some labourers will be thrown out of employment, or at any rate that there will be unemployment in that industry. It is surprising indeed that this should not be more universally recognised, for of course it is only a simple application of the general theory of monopoly. We all know that if the proprietor of a patent medicine decides to increase his supply, if he does not successfully readjust his price to the prevailing conditions of demand he is liable to be left with unsold bottles. It is time that we realised that *in this respect* the market for labour is not dissimilar from the market for patent medicines.

Given the variation in supply then, everything is still ultimately dependent upon the conditions of demand. We may, therefore, formulate the following generalisation. *For every wage-rate that can be fixed there is an elasticity of demand for labour that will just maintain employment constant for a given variation in supply of labour.* If the actual elasticity is greater than this, then an increase in the work offered will increase employment, and a decrease diminish it. If it is less, then the converse result is to be expected.

We may illustrate this by two cases of great practical significance. Let us assume that the workers in a given industry have agreed to lengthen their working day, such a lengthening

[1] It is assumed, of course, that, in the case of work remunerated on a piece-wage basis, the intensity of work only suffers the consequential changes discussed already.

being accompanied by an increase in daily output. Let us assume further that, being willing to submit to a downward revision of rates, they insist only on such rates as maintain daily wages constant. In such a case, clearly, if employment is to remain constant, the elasticity of demand for labour must be of the constant outlay order—that is, in Marshallian terms, equal to unity.[1] If it is greater than this, employment will be increased (or profits will rise); if it is less, it will be diminished—the degree of extension or contraction for the given variation depending on the degree in which the elasticity of demand is greater or less than unity.

Let us now reverse the requirements of our policy. In harmony with recent fashions let us regard constancy of employment rather than constancy of wages as the ultimate *desideratum*. It is not difficult to show that in certain cases a lengthening of the working day with increasing output must result in lower wages per head than would have prevailed if the day had not been lengthened. For obviously the downward cut in wage-rates, which is necessary to maintain employment constant, must always be greater if output is increased than if it is not. The greater supply of work must necessarily be cleared at a somewhat lower price per unit. But if the elasticity of demand is greater than unity, this greater diminution in wage-rates will not offset the increase in the number of units by which it is multiplied. On the other hand, if the elasticity of demand is less than unity, this will actually happen. The fall in wages will be greater than it would have been if hours had not been lengthened. The popular belief that, if hours are lengthened, a fall in wages can always be averted or at least diminished, is only true when certain conditions are satisfied. If they are not, then it must prove a bitter delusion. It would be pleasant to believe that some day city editors and leader-writers might become aware of this simple proposition.

Clearly we are a long way here from the harmony we found existing between individual income and output. A group which puts more into the common pool may be compelled to take out less, and a group which diminishes the size of the pool may receive an enhanced share. But notice that our generalisations with regard to individuals are not rendered invalid by the fact of group variation. It still remains true that, if a given individual varies his hours of labour, his income tends to vary with his output.

[1] If the changes are not relatively small, then, as Dr. Dalton has shown, the Marshallian formula becomes inadequate (see Dalton *Inequality of Incomes*, pp. 192–197.) For convenience of exposition, however, I refrain from introducing this complication.

The unfortunate miner may see his standards of life being wrecked by an upward variation of hours affecting price more than proportionately. But if he does not vary his hours upward too, he will get even less than he would have done otherwise. On the other hand, if group rates are being raised by a common restrictive policy, each individual would lose if *all* were to abandon restriction, yet *each* will gain if he singly succeeds in evading the regulation. The behaviour of the group moves the target, but the individual score still depends on the marksman.

VI

But this is not the end of group variations. Rather it is only the beginning. For unless we are willing to contemplate only the institutions of a caste society, it is not to be expected that variations in one group should not sometimes at least involve migration to or from others. This, however, is a matter which can be considered more conveniently when we have surveyed the effects of wider variations. I pass, therefore, to changes of hours of labour throughout society as a whole. Suppose all the producers in a given society decide to vary their hours of labour, what results are to be expected?

So far as the real income of society is concerned, what has been said already is sufficient. The real income of society *is* its output, and therefore what has been said about output exhausts this part of the subject. One caution perhaps is necessary. We have seen that the point of maximum productiveness varies from man to man and from industry to industry. It is not to be expected, therefore, that the output of each man and each industry will be similarly affected by similar variations of hours of labour. On the contrary, we must expect not only the *extent* but even the *direction* of variation to vary. It is only, therefore, after striking a balance that we can speak of effects on the social income.

But now let us turn to the incomes of the various individuals and classes within society. Here obviously we have a problem of greater complexity than any we have yet examined, and it is advisable to proceed to its solution by stages.

Let us begin by assuming homogeneity of skill, flexibility of wage-rates and complete mobility of labour. In this way we can ignore the different effects upon the position of different groups which in almost any real world would be produced by the variation we are supposing, and concentrate on the problem of what will happen to the general level of wages.

Viewed thus, the problem is relatively simple. The number of units of work offered has changed. Their value per unit, therefore, will fluctuate inversely. But the change in the supply of work does not mean a change in the number of labourers. Real wages, therefore, will depend on the elasticity of demand for labour. If the elasticity of demand for labour is greater than unity, then wages will vary directly, and if it is less, inversely, with changes in daily output.

This result is a purely formal one. But we need not be content with formality. For it is the almost universal consensus of opinion among economists [1] that, in the modern world at any rate, with its wealth of technical knowledge and its itch for material improvement, the elasticity of demand for labour is greater than unity. Hence we may assert with some confidence that given our assumptions of plastic wage-rates, a competitive labour market and complete mobility of labour, an increase of hours leading to an increase of output will result in increased wages, and *vice versa*. Some of the increase will no doubt go to other factors, but if this opinion with regard to elasticity is true, there is no need to fear that wages will not benefit.

All this, however, rests upon an assumption which enables us to speak as if all wages were similarly affected. But in the world we live in, this assumption is not valid. Workers are not all of the same degree of skill and adaptability, and even within groups which are homogeneous in these respects, for short periods at least, they are not completely mobile. Therefore, unless we are willing to make the unreal assumption that when the output of different groups varies simultaneously, the amounts spent on the new output vary so as to leave the relative position of the groups unchanged, we are not entitled to assume that the effects of a uniform variation will be uniformly distributed among wage-earners in general. Again, everything will depend upon the demand for different kinds of labour. It is true that things are not quite so simple here as in the cases we contemplated when we were considering group variation. For there we assumed that the supply of one commodity only was changing, the social demand at different prices remaining unaltered. Here not only is supply changing in each industry, but the demand arising from other industries is changing also. In technical terms, it is not only a case of a shift of the point P along a given demand curve: the position of the curve itself is to be regarded as changing. None the less, the same broad considerations are

[1] See *e.g.* Pigou, *Economics of Welfare* (2nd ed.), pp. 622–8.

applicable. Where the demand is relatively inexpansible the position of the workers will be relatively worsened by an increase and bettered by a diminution of output. Where it is relatively expansible the converse effects will follow.

Hence, if the full effects of the change in output are to be diffused to the maximum extent among different classes of wage-earners, there must at the same time be a transfer of workers from the positions of less to the positions of greater comparative advantage. If it is an increase, workers will have to move to the industries of more expansible demands or to new industries. If it is a diminution, *vice versa.* And of course in a world of specialised skill and incomplete mobility, such a uniform diffusion as we contemplated at first is *never* to be expected. All that can be said is that, granted a fair degree of mobility, disharmonies will be reduced to a minimum.

These conclusions sound abstract, but they embody a perfectly common-sense principle. If productive power increases in any way, it is surely most improbable that the increase will be most effectively utilised by uniform application in all directions. If some uniformly efficient robot were invented which increased our powers to do simple manual labour by, say, 25 per cent., we should not expand the production of wheat and motor-cars in equal proportions. And similarly if some cosmic disaster were to reduce productive powers by a quarter, we should not curtail the production of necessities and luxuries uniformly. Progress, in fact—using the word progress in a strictly non-ethical sense—involves the progressive diminution of the relative proportions of productive power applied to the making of things which are in inelastic demand, and a progressive transfer of productive power to the making of things the demand for which is still elastic. And retrogression, the contrary process. That, incidently, is one of the reasons why, in a progressive age, agriculture is in a state of chronic depression. And, of course, rational increases of hours (increases, that is, which do not go beyond the point of maximum productiveness) *are* increases of productive power—as are also those diminutions which increase production.

Considerations of this sort enable us to complete our treatment of the effects of group variation which we had to leave unfinished a little way back. Obviously we must take into account the possibility of movement both into the industry and away from it. If an extension of hours involves an increase of income, or a contraction a diminution, then we may assume that no movement

is engendered.[1] For by hypothesis we are considering *voluntary* variations. We are, therefore, entitled to assume that the group concerned prefer the gain in income or leisure to the sacrifice in leisure or income. But if income moves inversely to the variation in hours, clearly *if* movement is possible it will take place. There is now a double loss or a double gain to disturb the equilibrium, and if mobility is possible there will be transfers until those employed in the industry in question do not gain or lose more than, with their given disposition towards work and leisure, they would gain elsewhere, the loss or gain of productive power being diffused more or less equally throughout the area of mobility. Only, therefore, where there is an absence of mobility will the disharmonies we have studied in this connection be permanent.

VII

That is all I have time to say here about variations throughout a whole society. The interesting complications which arise when wage-rates are not flexible can be deduced for the most part as corollaries from what has been said already. I pass, therefore, finally to consider the case of variations on the part of open geographical groups.

Here fortunately it is possible once more to be brief. For the principles we have already investigated can be combined to afford a sufficient solution to the various puzzles that confront us. So far as the inhabitants of the area of variation consume their own products, what has been said about a closed society is applicable. So far as they obtain their income by exchanging their products for products produced abroad, the analysis developed in connection with industrial groups is applicable. This is easy to see if we suppose that the group is sufficiently small to produce only *one* commodity, for the geographical group *is* then an industrial group, and that is the end of the matter. When the group is wider, then matters become more complicated; but when allowance has been made for changes in the relative value of different commodities and the reshifting of employment, the same broad generalisations hold. Whether on balance the group gains or loses depends on the conditions of demand and upon the net economies or diseconomies involved by changes in the scale of production.

[1] It is, of course, conceivable that persons outside the group might prefer the new situation and seek it. In such a case the assumption made above would be invalid. I am indebted to Dr. Dalton for this suggestion.

Here again, therefore, there is a theoretical possibility that the income of the geographical group—the "national" income, that is to say—and the world income may move in different directions, and no doubt areas are conceivable in the world as we know it which might gain or lose by this disharmony. But a little reflection on the causes influencing elasticity should convince us that ours is not one of these areas. For, as is well known, one of the most important circumstances influencing the demand for exports is the possibility of obtaining similar supplies, or supplies sufficiently similar, from elsewhere. If this is present, demand will tend to be very elastic. A slight rise in price per unit will cause the transference of foreign demand to other sources of production. A slight fall will mean a considerable enhancement of foreign purchases. Other things being equal, the smaller the group the more probable the existence of alternative sources of supply, and hence the greater the elasticity of demand for exports. Of course this factor of "economic size" may be offset by the possession of unique facilities for production, but so far as our own position is concerned, it is abundantly clear that Providence has not granted us this substitute for industry.

All this assumes the absence of transfers of labour and capital between the areas whose fortunes we are considering. And so far as we consider the particular geographical groups called nations and concentrate upon short-period tendencies, in the modern world, with its legal and cultural checks on movement, this assumption is not out of touch with reality, as regards the human factor. But so far as capital is concerned, it is altogether too artificial. If man is of all luggage the most difficult to be transported, free capital is the most easy. Now the variation of hours in any area will clearly make the investment of capital more or less profitable there as compared with investment in other areas. Hence so far as new capital is concerned we should expect to see the gains or losses resulting from any variation rapidly diffused over the whole area of capital investment. The main effects of the change, therefore, will be seen in the incomes of the immobile factors, labour and property which is not easily transferable. Thus, suppose a contraction of hours, a shrinkage of the supply of labour not compensated by an enhancement in the total value of the product. The return per unit to capital would fall, and this would mean that, in the absence of restriction, capital would tend to go elsewhere. With less capital the productivity of labour would be less, and consequently wages would fall still further. Here, too, notice that the effects would be more

pronounced in an area that was comparatively small than in one that was comparatively extensive.

VIII

That is all I have to say to-day on the broad effects of variations of hours of labour. It is sometimes urged that, beyond this, reductions of hours tend to produce dynamic changes in the general productive situation, in that they tend to evoke new inventions in organisation and technique. Up to a point no doubt this is true, and it is a matter which in any particular situation deserves the most careful consideration of the negotiating parties.[1] But even the most fervent advocate of this view can hardly contend that these improvements in productive efficiency are *invariably* to be associated with changes in hours, in the same way as the tendencies I have been discussing. If a scarcity of coal or labour stimulates entrepreneurs to new inventions under certain conditions, it is certainly a fact to be noted and to be borne in mind when policy is being considered. But it is not a tendency which is logically implicit in *every* variation in every conceivable situation, and having acknowledged the possibility of its appearance, we are justified here, I think, in regarding it as a secondary complication.

It remains, therefore, only for me to draw certain conclusions from what has been stated already. Two facts, I think, stand out clearly from the welter of complications. In the first place is the absence of harmony between group incentives and the interests of the social income. So far as individuals are concerned, this disharmony is not present. What diminishes the prospect of income for society diminishes it also for the individual, and *vice versa*. But when certain conditions are not present, this is not so for groups of individuals acting concertedly. And this has a double implication. (*a*) On the one hand, it suggests that if we are determined to consider the interests of a group as a group—and in the modern world such a choice is from time to time forced upon

[1] It is a matter, too, which, together with the parallel argument as regards increases of wages, is, I think, capable of further theoretical treatment than it has received already. Clearly there must be a point of maximum effectiveness for such pressure—it is not to be believed that *any* reduction of hours or *any* rise of wages must necessarily have healthy dynamic consequences—and it would be highly interesting to know something more about the conditions determining the position of this maximum in any particular situation. No doubt absolute precision here is even harder to attain than in the discussion of static problems. But the attempt would be well worth making. So long as there is *no* quantitative element in our dynamic speculations, they must remain the ready instrument of economic obscurantism.

us—much greater caution than is usually exercised is necessary before we recommend to the group conduct which might be expedient either for an individual or for society. Deliberately to recommend an increase of hours when the conditions of demand are not elastic is either very ignorant or very Machiavellian. (*b*) And on the other hand, it suggests that, from the point of view of long-period policy, it is possible that in recent years too much attention may have been given to the interests of groups as such and too little to the importance of movement between groups. In saying this I do not wish to prejudge the tremendous issues of the relative importance of group and social solidarity. But I do suggest that it is well to recognise that exclusive concentration on the interests of a group, as a group, does not necessarily imply a like preoccupation with the interests of society. The right of an industry to remain such and such a size and to secure for itself the maximum income under the given circumstances can only be maintained at the risk of failing to maximise the income of society. This is true of the society in which we live. It is a problem which would be equally insistent in any other state of society. Only a community that had forsworn the criteria of economy could afford to neglect the importance of considerable mobility of labour.

But, on the other hand—and this is my second point—there is nothing in all this which justifies the view that the income of society as a whole fluctuates inversely with fluctuations in efficiency. To argue from the possible success for a group of a policy of restriction to the probable success for society as a whole of a similar policy is to commit the fallacy of composition. Nor can it be urged, I think, that there is any probability that wages in general could benefit from such a policy. This is probably true of society as a whole in the world as we know it. It is *certainly* true in a small area such as Great Britain. There is nothing in general theory to justify the belief that diminutions in hours which do not increase efficiency will tend to raise general wages, or that increases which do not diminish efficiency will tend to lower them. Only those who have never learnt to distinguish the general from the particular can urge the contrary proposition.

But notice finally, that this is not in the least to argue that increases are desirable or that diminutions are undesirable. Those who have become so preoccupied with accumulating the means of a good life that they have forgotten that the end is existent may argue that men *should* work so as to secure the maximum product.

There is nothing in economic science which supports them.[1] The relative values which men assign to leisure and the results of production determine indeed the phenomena we have to analyse, but to pronounce upon the validity of these valuations as such is completely outside our province. All that we can do is to attempt to exhibit clearly what consequences follow from one choice or another, and to do this for one small part of the field of choice is all that has been attempted in this paper.

LIONEL ROBBINS

New College, Oxford,
August, 1928.

[1] It is obvious, of course, that such an arrangement will be economical only if the last increment of product obtainable is valued *more* than the leisure that has to be sacrificed to obtain it. Even the despised classical economists knew this. "Happiness is the object to be desired, and we cannot be quite sure that, provided he is equally well fed, a man may not be happier in the enjoyment of the luxury of idleness than in the enjoyment of the luxuries of a neat cottage and good clothes."—Ricardo, *Letters to Malthus*. Ed. Bonar, pp. 138–9.

STABILITY IN COMPETITION [1]

After the work of the late Professor F. Y. Edgeworth one may doubt that anything further can be said on the theory of competition among a small number of entrepreneurs. However, one important feature of actual business seems until recently to have escaped scrutiny. This is the fact that of all the purchasers of a commodity, some buy from one seller, some from another, in spite of moderate differences of price. If the purveyor of an article gradually increases his price while his rivals keep theirs fixed, the diminution in volume of his sales will in general take place continuously rather than in the abrupt way which has tacitly been assumed.

A profound difference in the nature of the stability of a competitive situation results from this fact. We shall examine it with the help of some simple mathematics. The form of the solution will serve also to bring out a number of aspects of a competitive situation whose importance warrants more attention than they have received. Among these features, all illustrated by the same simple case, we find (1) the existence of incomes not properly belonging to any of the categories usually discussed, but resulting from the discontinuity in the increase in the number of sellers with the demand; (2) a socially uneconomical system of prices, leading to needless shipment of goods and kindred deviations from optimum activities; (3) an undue tendency for competitors to imitate each other in quality of goods, in location, and in other essential ways.

Piero Sraffa has discussed [2] the neglected fact that a market is commonly subdivided into regions within each of which one seller is in a quasi-monopolistic position. The consequences of this phenomenon are here considered further. In passing we remark that the asymmetry between supply and demand, between buyer and seller, which Professor Sraffa emphasises is due to the condition that the seller sets the price and the buyers the quanti-

[1] Presented before the American Mathematical Society at New York, April 6, 1928, and subsequently revised.

[2] "The Laws of Returns Under Competitive Conditions," Economic Journal, Vol. XXXVI. pp. 535–550, especially pp. 544 ff. (December 1926).

ties they will buy. This condition in turn results from the large number of the buyers of a particular commodity as compared with the sellers. Where, as in new oil-fields and in agricultural villages, a few buyers set prices at which they will take all that is offered and exert themselves to induce producers to sell, the situation is reversed. If in the following pages the words "buy" and "sell" be everywhere interchanged, the argument remains equally valid, though applicable to a different class of businesses.

Extensive and difficult applications of the Calculus of Variations in economics have recently been made, sometimes to problems of competition among a small number of entrepreneurs.[1] For this and other reasons a re-examination of stability and related questions, using only elementary mathematics, seems timely.

Duopoly, the condition in which there are two competing merchants, was treated by A. Cournot in 1838.[2] His book went apparently without comment or review for forty-five years until Walras produced his *Théorie Mathématique de la Richesse Sociale*, and Bertrand published a caustic review of both works.[3] Bertrand's criticisms were modified and extended by Edgeworth in his treatment of duopoly in the *Giornale degli Economisti* for 1897,[4] in his criticism of Amoroso,[5] and elsewhere. Indeed all writers since Cournot, except Sraffa and Amoroso,[6] seem to hold that even apart from the likelihood of combination there is an essential instability in duopoly. Now it is true that such competition lacks complete stability; but we shall see that in a very general class of cases the independent actions of two competitors not in collusion lead to a type of equilibrium much less fragile than in the examples of Cournot, Edgeworth and Amoroso. The solution which we shall obtain can break down only in case of an express or tacit understanding which converts the supposed

[1] For references to the work of C. F. Roos and G. C. Evans on this subject see the paper by Dr. Roos, "A Dynamical Theory of Economics," in the *Journal of Political Economy*, Vol. XXXV. (1927), or that in the *Transactions of the American Mathematical Society*, Vol. XXX. (1928), p. 360. There is also an application of the Calculus of Variations to depreciation by Dr. Roos in the *Bulletin of the American Mathematical Society*, Vol. XXXIV. (1928), p. 218.

[2] *Recherches sur les Principes Mathématiques de la Théorie des Richesses.* Paris (Hachette). Chapter VII. English translation by N. T. Bacon, with introduction and bibliography by Irving Fisher (New York, Macmillan, 1897 and 1927).

[3] *Journal des Savants* (1883), pp. 499–508.

[4] Republished in English in Edgeworth's *Papers Relating to Political Economy* (London, Macmillan, 1925), Vol. I. pp. 116–26.

[5] ECONOMIC JOURNAL, Vol. XXXII. (1922), pp. 400–7.

[6] *Lezioni di Economia Mathematica* (Bologna, Zanichelli, 1921).

competitors into something like a monopoly, or in case of a price war aimed at eliminating one of them altogether.

Cournot's example was of two proprietors of mineral springs equally available to the market and producing, without cost, mineral water of identical quality. The demand is elastic, and the price is determined by the total amount put on the market. If the respective quantities produced are q_1 and q_2 the price p will be given by a function

$$p = f(q_1 + q_2).$$

The profits of the proprietors are respectively

$$\pi_1 = q_1 f(q_1 + q_2)$$

and

$$\pi_2 = q_2 f(q_1 + q_2).$$

The first proprietor adjusts q_1 so that, when q_2 has its current value, his own profit will be as great as possible. This value of q_1 may be obtained by differentiating π_1, putting

$$f(q_1 + q_2) + q_1 f(q_1 + q_2) = 0.$$

In like manner the second proprietor adjusts q_2 so that

$$f(q_1 + q_2) + q_2 f(q_1 + q_2) = 0.$$

There can be no equilibrium unless these equations are satisfied simultaneously. Together they determine a definite (and equal) pair of values of q_1 and q_2. Cournot showed graphically how, if a different pair of q's should obtain, each competitor in turn would readjust his production so as to approach as a limit the value given by the solution of the simultaneous equations. He concluded that the actual state of affairs will be given by the common solution, and proceeded to generalise to the case of n competitors.

Against this conclusion Bertrand brought an "objection péremptoire." The solution does not represent equilibrium, for either proprietor can by a slight reduction in price take away all his opponent's business and nearly double his own profits. The other will respond with a still lower price. Only by the use of the quantities as independent variables instead of the prices is the fallacy concealed.

Bertrand's objection was amplified by Edgeworth, who maintained that in the more general case of two monopolists controlling commodities having correlated demand, even though not identical, there is no determinate solution. Edgeworth gave a variety of examples, but nowhere took account of the stabilising effect of masses of consumers placed so as to have a natural

preference for one seller or the other. In all his illustrations of competition one merchant can take away his rival's entire business by undercutting his price ever so slightly. Thus discontinuities appear, though a discontinuity, like a vacuum, is abhorred by nature. More typical of real situations is the case in which the quantity sold by each merchant is a continuous function of two variables, his own price and his competitor's. Quite commonly a tiny increase in price by one seller will send only a few customers to the other.

I

The feature of actual business to which, like Professor Sraffa, we draw attention, and which does not seem to have been generally taken account of in economic theory, is the existence with reference to each seller of groups of buyers who will deal with him instead of with his competitors in spite of a difference in price. If a seller increases his price too far he will gradually lose business to his rivals, but he does not lose all his trade instantly when he raises his price only a trifle. Many customers will still prefer to trade with him because they live nearer to his store than to the others, or because they have less freight to pay from his warehouse to their own, or because his mode of doing business is more to their liking, or because he sells other articles which they desire, or because he is a relative or a fellow Elk or Baptist, or on account of some difference in service or quality, or for a combination of reasons. Such circles of customers may be said to make every entrepreneur a monopolist within a limited class and region—and there is no monopoly which is not confined to a limited class and region. The difference between the Standard Oil Company in its prime and the little corner grocery is quantitative rather than qualitative. Between the perfect competition and monopoly of theory lie the actual cases.

It is the gradualness in the shifting of customers from one merchant to another as their prices vary independently which is ignored in the examples worked out by Cournot, Amoroso and Edgeworth. The assumption, implicit in their work, that all buyers deal with the cheapest seller leads to a type of instability which disappears when the quantity sold by each is considered as a continuous function of the differences in price. The use of such a continuous function does, to be sure, seem to violate the doctrine that in one market there can at one time be only one price. But this doctrine is only valid when the commodity in question is absolutely standardised in all respects and when the

" market " is a point, without length, breadth or thickness. It is, in fact, analogous to the physical principle that at one point in a body there can at one time be only one temperature. This principle does not prevent different temperatures from existing in different parts of a body at the same time. If it were supposed that any temperature difference, however slight, necessitates a sudden transfer of all the heat in the warmer portion of the body to the colder portion—a transfer which by the same principle would immediately be reversed—then we should have a thermal instability somewhat resembling the instability of the cases of duopoly which have been discussed. To take another physical analogy, the earth is often in astronomical calculations considered as a point, and with substantially accurate results. But the precession of the equinoxes becomes explicable only when account is taken of the ellipsoidal bulge of the earth. So in the theory of value a market is usually considered as a point in which only one price can obtain; but for some purposes it is better to consider a market as an extended region.

Consider the following illustration. The buyers of a commodity will be supposed uniformly distributed along a line of

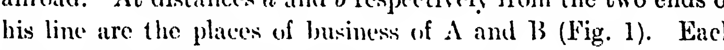

FIG. 1.

Market of length $l = 35$. In this example $a = 4$, $b = 1$, $x = 14$, $y = 16$.

length l, which may be Main Street in a town or a transcontinental railroad. At distances a and b respectively from the two ends of this line are the places of business of A and B (Fig. 1). Each buyer transports his purchases home at a cost c per unit distance. Without effect upon the generality of our conclusions we shall suppose that the cost of production to A and B is zero, and that unit quantity of the commodity is consumed in each unit of time in each unit of length of line. The demand is thus at the extreme of inelasticity. No customer has any preference for either seller except on the ground of price plus transportation cost. In general there will be many causes leading particular classes of buyers to prefer one seller to another, but the ensemble of such consideration is here symbolised by transportation cost. Denote A's price by p_1, B's by p_2, and let q_1 and q_2 be the respective quantities sold.

Now B's price may be higher than A's, but if B is to sell anything at all he must not let his price exceed A's by more than the cost of transportation from A's place of business to his own. In fact he will keep his price p_2 somewhat below the figure $p_1 -$

$c(l - a - b)$ at which A's goods can be brought to him. Thus he will obtain all the business in the segment of length b at the right of Fig. 1, and in addition will sell to all the customers in a segment of length y depending on the difference of prices and lying between himself and A. Likewise A will, if he sells anything, sell to all the buyers in the strips of length a at the left and of length x to the right of A, where x diminishes as $p_1 - p_2$ increases.

The point of division between the regions served by the two entrepreneurs is determined by the condition that at this place it is a matter of indifference whether one buys from A or from B. Equating the delivered prices we have

$$p_1 + cx = p_2 + cy.$$

Another equation between x and y is

$$a + x + y + b = l.$$

Solving we find

$$x = \tfrac{1}{2}\left(l - a - b + \frac{p_2 - p_1}{c}\right),$$

$$y = \tfrac{1}{2}\left(l - a - b + \frac{p_1 - p_2}{c}\right),$$

so that the profits are

$$\pi_1 = p_1 q_1 = p_1(a + x) = \tfrac{1}{2}(l + a - b)p_1 - \frac{p_1^2}{2c} + \frac{p_1 p_2}{2c}$$

and $$\pi_2 = p_2 q_2 = p_2(b + y) = \tfrac{1}{2}(l - a + b)p_2 - \frac{p_2^2}{2c} + \frac{p_1 p_2}{2c}.$$

If p_1 and p_2 be taken as rectangular co-ordinates, each of the last equations represents a family of hyperbolas having identical asymptotes, one hyperbola for each value of π_1 or π_2. Some of these curves are shown in Fig. 2, where (as also in Fig. 1) we have taken $l = 35$, $a = 4$, $b = 1$, $c = 1$.

Each competitor adjusts his price so that, with the existing value of the other price, his own profit will be a maximum. This gives the equations

$$\frac{\partial \pi_1}{\partial p_1} = \tfrac{1}{2}(l + a - b) - \frac{p_1}{c} + \frac{p_2}{2c} = 0$$

$$\frac{\partial \pi_2}{\partial p_2} = \tfrac{1}{2}(l - a + b) + \frac{p_1}{2c} - \frac{p_2}{c} = 0$$

from which we obtain

$$p_1 = c\left(l + \frac{a - b}{3}\right),$$

$$p_2 = c\left(l - \frac{a - b}{3}\right);$$

and
$$q_1 = a + x = \tfrac{1}{2}\left(l + \frac{a - b}{3}\right)$$
$$q_2 = b + y = \tfrac{1}{2}\left(l - \frac{a - b}{3}\right)$$

The conditions $\partial^2\pi_1/\partial p_1^2 < 0$ and $\partial^2\pi_2/\partial p_2^2 < 0$, sufficient for a maximum of each of the functions π_1 and π_2, are obviously satisfied.

If the two prices are originally the co-ordinates of the point Q in Fig. 2, and if A is the more alert business man of the two, he

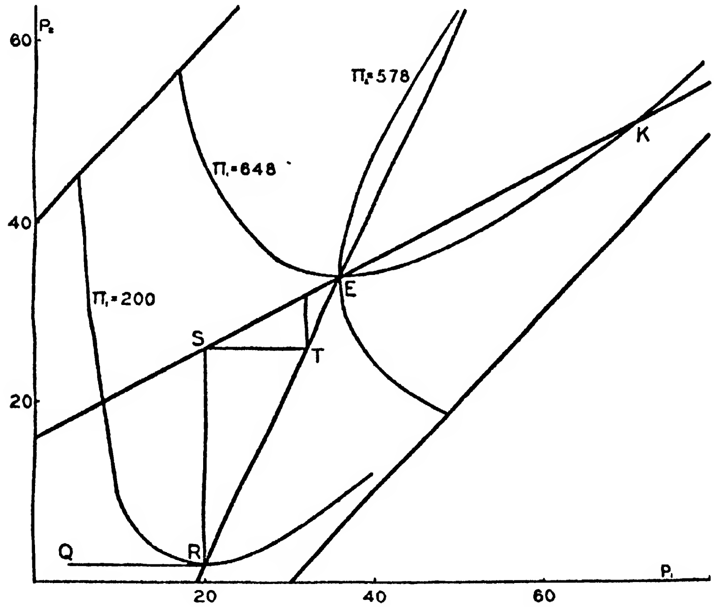

FIG. 2.

Conditions of competition for the market of Fig. 1. The co-ordinates represent the prices at A's and B's shops for the same article. The straight lines through E are the two lines of maximum profit. On one of the curves through E, A's profit is everywhere 648; on the other, B's is 578. The lower curve is the locus on which A's profit is 200.

will change his price so as to make his profit a maximum. This is represented graphically by a horizontal motion to the point R on the line $\partial\pi_1/\partial p_1 = 0$. This line has the property that every point on it represents a greater profit for A than any other point having the same ordinate. But presently B discovers that his profits can be increased by a vertical motion to the point S on his own line of maximum profit. A now moves horizontally to T. Thus there is a gradual approach to the point E at the intersection of the two lines; its co-ordinates are given by the values of p_1 and

p_2 found above. At E there is equilibrium, since neither merchant can now increase his profit by changing his price. The same result is reached if instead of Q the starting point is any on the figure.[1]

Now it is true that prices other than the co-ordinates of the equilibrium point may obtain for a considerable time. Even at this point one merchant may sacrifice his immediate income to raise his price, driving away customers, in the hope that his rival will do likewise and thus increase both profits. Indeed if A moves to the right from E in Fig. 2 he may reasonably expect that B will go up to his line of maximum profit. This will make A's profit larger than at E, provided the representing point has not gone so far to the right as K. Without this proviso, A's position will be improved (and so will B's as compared with E) if only B will sufficiently increase p_2. In fact, since the demand is inelastic, we may imagine the two alleged competitors to be amicably exploiting the consumers without limit by raising their prices. The increases need not be agreed upon in advance but may proceed by alternate steps, each seller in turn making his price higher than the other's, but not high enough to drive away all business. Thus without a formal agreement the rivals may succeed in making themselves virtually a monopoly. Something of a tacit understanding will exist that prices are to be maintained above the level immediately profitable in order to keep profits high in the long run.

But understandings between competitors are notoriously fragile. Let one of these business men, say B, find himself suddenly in need of cash. Immediately at hand he will have a resource: Let him lower his price a little, increasing his sales. His profits will be larger until A decides to stop sacrificing business

[1] The solution given above is subject to the limitation that the difference between the prices must not exceed the cost of transportation from A to B. This means that E must lie between the lines $p_1 - p_2 = \pm c(l - a - b)$ on which the hyperbolic arcs shown in Fig. 2 terminate. It is easy to find values of the constants for which this condition is not satisfied (for example, $l = 20$, $a = 11$, $b = 8$, $c = 1$). *In such a case the equilibrium point will not be E and the expressions for the p's, q's and π's will be different;* but there is no essential difference either in the stability of the system or in the essential validity of the subsequent remarks. A's locus of maximum profit no longer coincides with the line $\partial\pi_1/\partial p_1 = 0$, but consists of the portion of this line above its intersection with $p_1 - p_2 = c(l - a - b)$, and of the latter line below this point. Likewise B's locus of maximum profit consists of the part of the line $\partial\pi_2/\partial p_2 = 0$ to the right of its intersection with $p_2 - p_1 = c(l - a - b)$, together with the part of the last line to the left of this point. These two loci intersect at the point whose co-ordinates are, for $a > b$,

$$p_1 = c(3l - 3a - b), \quad p_2 = 2c(l - a),$$

and the type of stability is the same as before.

and lowers his price to the point of maximum profit. B will now be likely to go further in an attempt to recoup, and so the system will descend to the equilibrium position E. Here neither competitor will have any incentive to lower his price further, since the increased business obtainable would fail to compensate him.

Indeed the difficulties of maintaining a price-fixing agreement have often been remarked. Not only may the short-sighted cupidity of one party send the whole system crashing through price-cutting; the very fear of a price cut will bring on a cut. Moreover, a price agreement cannot be made once for all; where conditions of cost or of demand are changing the price needs constant revision. The result is a constant jarring, an always obvious conflict of interests. As a child's pile of blocks falls to its equilibrium position when the table on which it stands is moved, so a movement of economic conditions tends to upset quasi-monopolistic schemes for staying above the point E. For two independent merchants to come to an agreement of any sort is notoriously difficult, but when the agreement must be made all over again at frequent intervals, when each has an incentive for breaking it, and when it is frowned upon by public opinion and must be secret and perhaps illegal, then the pact is not likely to be very durable. The difficulties are, of course, more marked if the competitors are more numerous, but they decidedly are present when there are only two.

The details of the interaction of the prices and sales will, of course, vary widely in different cases. Much will depend upon such market conditions as the degree of secrecy which can be maintained, the degree of possible discrimination among customers, the force of habit and character as affecting the reliance which each competitor feels he can put in the promises of the other, the frequency with which it is feasible to change a price or a rate of production, the relative value to the entrepreneur of immediate and remote profits, and so on. But always there is an insecurity at any point other than the point E which represents equilibrium. Without some agreement, express or tacit, the value of p_1 will be less than or equal to the abscissa of K in Fig. 2; and in the absence of a willingness on the part of one of the competitors to forgo immediate profits in order to maintain prices, the prices will become the co-ordinates of E.

One important item should be noticed. The prices may be maintained in a somewhat insecure way *above* their equilibrium values but will never remain *below* them. For if either A or B

has a price which is less than that satisfying the simultaneous equations it will pay him *at once* to raise it. This is evident from the figure. Strikingly in contrast with the situation pictured by Bertrand, where prices were for ever being cut below their calculated values, the stabilising effect of the intermediate customers who shift their purchases gradually with changing prices makes itself felt in the existence of a pair of minimum prices. For a prudent investor the difference is all-important.

It is, of course, possible that A, feeling stronger than his opponent and desiring to get rid of him once for all, may reduce his price so far that B will give up the struggle and retire from the business. But during the continuance of this sort of price war A's income will be curtailed more than B's. In any case its possibility does not affect the argument that there is stability, since stability is by definition merely the tendency to return after *small* displacements. A box standing on end is in stable equilibrium, even though it can be tipped over.

II

Having found a solution and acquired some confidence in it, we push the analysis further and draw a number of inferences regarding a competitive situation.

When the values of the p's and q's obtained on p. 46 are substituted in the previously found expressions for the profits we have

$$\pi_1 = \frac{c}{2}\left(l + \frac{a-b}{3}\right)^2, \quad \pi_2 = \frac{c}{2}\left(l - \frac{a-b}{3}\right)^2.$$

The profits as well as the prices depend directly upon c, the unit cost of transportation. These particular merchants would do well, instead of organising improvement clubs and booster associations to better the roads, to make transportation as difficult as possible. Still better would be their situation if they could obtain a protective tariff to hinder the transportation of their commodity between them. Of course they will not want to impede the transportation of the supplies which come to them; the object of each is merely to attain something approaching a monopoly.

Another observation on the situation is that incomes exist which do not fall strictly within any of the commonly recognised categories. The quantities π_1 and π_2 just determined may be classified as monopoly profits, but only if we are ready to extend the term " monopoly " to include such cases as have been con-

sidered, involving the most outright competition for the marginal customer but without discrimination in his favour, and with no sort of open or tacit agreement between the sellers. These profits certainly do not consist of wages, interest or rent, since we have assumed no cost of production. This condition of no cost is not essential to the existence of such profits. If a constant cost of production per unit had been introduced into the calculations above, it would simply have been added to the prices without affecting the profits. Fixed overhead charges are to be subtracted from π_1 and π_2, but may leave a substantial residuum. These gains are not compensation for risk, since they represent a minimum return. They do not belong to the generalised type of "rent," which consists of the advantage of a producer over the marginal producer, since each makes a profit, and since, moreover, we may suppose a and b equal so as to make the situation symmetrical. Indeed π_1 and π_2 represent a special though common sort of profit which results from the fact that the number of sellers is finite. If there are three or more sellers, income of this kind will still exist, but as the number increases it will decline, to be replaced by generalised "rent" for the better-placed producers and poverty for the less fortunate. The number of sellers may be thought of as increasing as a result of a gradual increase in the number of buyers. Profits of the type we have described will exist at all stages of growth excepting those at which a new seller is just entering the field.

As a further problem, suppose that A's location has been fixed but that B is free to choose his place of business. Where will he set up shop? Evidently he will choose b so as to make

$$\pi_2 = \frac{c}{2}\left(l + \frac{b-a}{3}\right)^2$$

as large as possible. This value of b cannot be found by differentiation, as the value thus determined exceeds l and, besides, yields a minimum for π_2 instead of a maximum. But for all smaller values of b, and so for all values of b within the conditions of the problem, π_2 increases with b. Consequently B will seek to make b as large as possible. This means that he will come just as close to A as other conditions permit. Naturally, if A is not exactly in the centre of the line, B will choose the side of A towards the more extensive section of the market, making b greater than a.[1]

[1] The conclusion that B will tend to gravitate *infinitesimally* close to A requires a slight modification in the particular case before us, but not in general. In the footnote on p. 48 it was seen that when A and B are sufficiently close together, the analytic expressions for the prices, and consequently the profits,

This gravitation of B towards A increases B's profit at the expense of A. Indeed, as appears from the expressions on p. 46, if b increases so that B approaches A, both q_2 and p_2 increase while q_1 and p_1 diminish. From B's standpoint the sharper competition with A due to proximity is offset by the greater body of buyers with whom he has an advantage. But the danger that the system will be overturned by the elimination of one competitor is increased. The intermediate segment of the market acts as a cushion as well as a bone of contention ; when it disappears we have Cournot's case, and Bertrand's objection applies. Or, returning to the analogy of the box in stable equilibrium though standing on end, the approach of B to A corresponds to a diminution in size of the end of the box.

It has become common for real-estate subdividers in the United States to impose restrictions which tend more or less to fix the character of future businesses in particular locations. Now we find from the calculations above that the total profits of A and B amount to

$$\pi_1 + \pi_2 = c\left(l^2 + \frac{(a-b)^2}{3}\right).$$

Thus a landlord or realtor who can determine the location of future stores, expecting to absorb their profits in the sales value of the land, has a motive for making the situation as unsymmetrical as possible; for, the more the lack of symmetry, the greater is $(a-b)^2$, which appears in the expression above for $\pi_1 + \pi_2$.

Our example has also an application to the question of capitalism *v.* socialism, and contributes an argument to the socialist side. Let us consider the efficiency of our pair of merchants in serving the public by calculating the total of transportation charges paid by consumers. These charges for the strip of length a amount to $c\int_0^a t\,dt$, or $\frac{1}{2}ca^2$. Altogether the sum is

$$\tfrac{1}{2}c(a^2 + b^2 + x^2 + y^2).$$

---

are different. By a simple algebraic calculation which will not here be reproduced it is found that B's profits π_2 will increase as B moves from the centre towards A, only if the distance between them is more than four-fifths of the distance from A to the centre. If B approaches more closely his profit is given by $\pi_2 = bc(3l - a - 3b)$, and diminishes with increasing b. This optimum distance from A is, however, an adventitious feature of our problem resulting from a discontinuity which is necessary for simplicity. In general we should consider q_1 and q_2 as continuous functions of p_1 and p_2, instead of supposing, as here, that as $p_2 - p_1$ falls below a certain limit, a great mass of buyers shift suddenly from B to A.

Now if the places of business are both fixed, the quantities a, b and $x + y$ are all determined. The minimum total cost for transportation will be achieved if, for the given value of $x + y$, the expression $x^2 + y^2$ is a minimum. This will be the case if x and y are equal.

But x and y will not be equal unless the prices p_1 and p_2 are equal, and under competition this is not likely to be the case. If we bar the improbable case of A and B having taken up symmetrical positions on the line, the prices which will result from each seeking his own gain have been seen to be different. If the segment a in which A has a clear advantage is greater than b, then A's price will be greater than B's. Consequently some buyers will ship their purchases from B's store, though they are closer to A's, and socially it would be more economical for them to buy from A. If the stores were conducted for public service rather than for profit their prices would be identical in spite of the asymmetry of demand.

If the stores be thought of as movable, the wastefulness of private profit-seeking management becomes even more striking. There are now four variables, a, b, x and y, instead of two. Their sum is the fixed length l, and to minimise the social cost of transportation found above we must make the sum of their squares as small as possible. As before, the variables must be equal. This requires A and B to occupy symmetrical positions at the quartiles of the market. But instead of doing so they crowd together as closely as possible. Even if A, the first in the field, should settle at one of these points, we have seen that B upon his arrival will not go to the other, but will fix upon a location between A and the centre and as near A as possible.[1] Thus some customers will have to transport their goods a distance of more than $\frac{1}{2}l$, whereas with two stores run in the public interest no shipment should be for a greater distance than $\frac{1}{4}l$.

If a third seller C appears, his desire for as large a market as possible will prompt him likewise to take up a position close to A or B, but not between them. By an argument similar to that just used, it may be shown that regard only for the public interest would require A, B and C each to occupy one of the points at distances one-sixth, one-half and five-sixths of the way from one end of the line to the other. As more and more sellers of the same commodity arise, the tendency is not to become distributed in the socially optimum manner but to cluster unduly.

The importance and variety of such agglomerative tendencies

[1] With the unimportant qualification mentioned in the footnote on p. 48.

become apparent when it is remembered that distance, as we have used it for illustration, is only a figurative term for a great congeries of qualities. Instead of sellers of an identical commodity separated geographically we might have considered two competing cider merchants side by side, one selling a sweeter liquid than the other. If the consumers of cider be thought of as varying by infinitesimal degrees in the sourness they desire, we have much the same situation as before. The measure of sourness now replaces distance, while instead of transportation costs there are the degrees of disutility resulting from a consumer getting cider more or less different from what he wants. The foregoing considerations apply, particularly the conclusion that competing sellers tend to become too much alike.

The mathematical analysis thus leads to an observation of wide generality. Buyers are confronted everywhere with an excessive sameness. When a new merchant or manufacturer sets up shop he must not produce something exactly like what is already on the market or he will risk a price war of the type discussed by Bertrand in connection with Cournot's mineral springs. But there is an incentive to make the new product very much like the old, applying some slight change which will seem an improvement to as many buyers as possible without ever going far in this direction. The tremendous standardisation of our furniture, our houses, our clothing, our automobiles and our education are due in part to the economies of large-scale production, in part to fashion and imitation. But over and above these forces is the effect we have been discussing, the tendency to make only slight deviations in order to have for the new commodity as many buyers of the old as possible, to get, so to speak, *between* one's competitors and a mass of customers.

So general is this tendency that it appears in the most diverse fields of competitive activity, even quite apart from what is called economic life. In politics it is strikingly exemplified. The competition for votes between the Republican and Democratic parties does not lead to a clear drawing of issues, an adoption of two strongly contrasted positions between which the voter may choose. Instead, each party strives to make its platform as much like the other's as possible. Any radical departure would lose many votes, even though it might lead to stronger commendation of the party by some who would vote for it anyhow. Each candidate "pussyfoots," replies ambiguously to questions, refuses to take a definite stand in any controversy for fear of losing votes. Real differences, if they ever exist, fade gradually with time

though the issues may be as important as ever. The Democratic party, once opposed to protective tariffs, moves gradually to a position almost, but not quite, identical with that of the Republicans. It need have no fear of fanatical free-traders, since they will still prefer it to the Republican party, and its advocacy of a continued high tariff will bring it the money and votes of some intermediate groups.

The reasoning, of course, requires modification when applied to the varied conditions of actual life. Our example might have been more complicated. Instead of a uniform distribution of customers along a line we might have assumed a varying density, but with no essential change in conclusions. Instead of a linear market we might suppose the buyers spread out on a plane. Then the customers from one region will patronise A, those from another B. The boundary between the two regions is the locus of points for which the difference of transportation costs from the two shops equals the difference of prices, *i.e.* for which the delivered price is the same whether the goods are bought from A or from B. If transportation is in straight lines (perhaps by aeroplane) at a cost proportional to the distance, the boundary will be a hyperbola, since a hyperbola is the locus of points such that the difference of distances from the foci is constant. If there are three or more sellers, their regions will be separated from each other by arcs of hyperbolas. If the transportation is not in straight lines, or if its cost is given by such a complicated function as a railroad freight schedule, the boundaries will be of another kind; but we might generalise the term hyperbola (as is done in the differential geometry of curved surfaces) to include these curves also.

The number of dimensions of our picture is increased to three or more when we represent geometrically such characters as sweetness of cider, and instead of transportation costs consider more generally the decrement of utility resulting from the actual commodity being in a different place and condition than the buyer would prefer. Each homogeneous commodity or service or entrepreneur in a competing system can be thought of as a point serving a region separated from other such regions by portions of generalised hyperboloids. The density of demand in this space is in general not uniform, and is restricted to a finite region. It is not necessary that each point representing a service or commodity shall be under the control of a different entrepreneur from every other. On the other hand, everyone who sells an article

in different places or who sells different articles in the same place may be said to control the prices at several points of the symbolic space. The mutual gravitation will now take the form of a tendency of the outermost entrepreneurs to approach the cluster.

Two further modifications are important. One arises when it is possible to discriminate among customers, or to sell goods at a delivered price instead of a fixed price at store or factory plus transportation. In such cases, even without an agreement between sellers, a monopoly profit can be collected from some consumers while fierce competition is favouring others. This seems to have been the condition in the cement industry about which a controversy raged a few years ago, and was certainly involved in the railroad rebate scandals.

The other important modification has to do with the elasticity of demand. The problem of the two merchants on a linear market might be varied by supposing that each consumer buys an amount of the commodity in question which depends on the delivered price. If one tries a particular demand function the mathematical complications will now be considerable, but for the most general problems elasticity must be assumed. The difficulty as to whether prices or quantities should be used as independent variables can now be cleared up. This question has troubled many readers of Cournot. The answer is that either set of variables may be used; that the q's may be expressed in terms of the p's, and the p's in terms of the q's. This was not possible in Cournot's example of duopoly, nor heretofore in ours. The sum of our q's was constrained to have the fixed value l, so that they could not be independent, but when the demand is made elastic the constraint vanishes.

With elastic demand the observations we have made on the solution will still for the most part be qualitatively true; but the tendency for B to establish his business excessively close to A will be less marked. The increment in B's sales to his more remote customers when he moves nearer them may be more than compensation to him for abandoning some of his nearer business to A. In this case B will definitely and apart from extraneous circumstances choose a location at some distance from A. But he will not go as far from A as the public welfare would require. The tempting intermediate market will still have an influence.

In the more general problem in which the commodities purveyed differ in many dimensions the situation is the same. The elasticity of demand of particular groups does mitigate the

tendency to excessive similarity of competing commodities, but not enough. It leads some factories to make cheap shoes for the poor and others to make expensive shoes for the rich, but all the shoes are too much alike. Our cities become uneconomically large and the business districts within them are too concentrated. Methodist and Presbyterian churches are too much alike; cider is too homogeneous.

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INCREASED OUTPUT PER HEAD IN INDUSTRY IN THE U.S.A. AND U.K.

In Memorandum No. 6 published by the Royal Economic Society, dealing with the output of industry in the United Kingdom in 1924, the results of the 1924 Census of Production were compared with those for 1907 to obtain some indication of the change in output per head, and a rough calculation was also made for the U.S.A. over the same period by correcting indexes of physical production to allow for growth of population.

The result obtained for the U.S.A. has been criticised as too low in view of figures frequently quoted in this connection. Perhaps the most general statement involving the most invidious comparison with the United Kingdom is contained in the Report of the Committee on Industry and Trade (*Further Factors in Industrial and Commercial Efficiency*), which, after suggesting that the increase in the volume of output per head in the U.K. between 1907 and 1924 was relatively slight, quotes an estimate that in the U.S.A. between 1904 and 1925 the rates of increase of net industrial production and of horse power per head of employees were almost identical, viz., about 64 per cent.

Another calculation, conveying the impression of a striking increase in output per head in manufacture in the U.S.A. quotes the increase between 1919 and 1925 at 40 per cent.

TABLE I

	No. of salaried officers and employees (000).	Wage-earners, average number (000).	Value added by manufacture (*Mn. dollars*).	Wholesale price index 1913 = 100.
1899	364	4713	4881	75
1904	520	5468	6294	86
1909	790	6615	8529	97
1914	964	7036	9878	98
1919	1429	8990	24748	206
1921	1141	6938	18272	147
1923	1350	8768	25777	154
1925	1340	8384	26778	159

The data for these calculations are mostly derived from the results of the official Census of Manufactures conducted by the Department of Commerce. These results were not quoted in

Memorandum No. 6, since the U.S.A. census years did not coincide with the period under review. The present article, therefore, is intended to supplement the calculations of the Memorandum with the help of the Census results and other available information. The General Census Statistics of Manufactures in the U.S.A. covering the period 1899 to 1925 are given in Table I.

The calculations for output in the U.K. in Memorandum No. 6 were based on the number of wage-earners, excluding salaried employees, and the same procedure is adopted below for the U.S.A. The figures in Table I expressed as percentages with 1899 as base give :—

TABLE II

	Wage-earners.	Value added by manufacture.	Wholesale price index.	Output per head.
1899 . . .	100	100	100	100
1904 . . .	116	130	114	98
1909 . . .	140	177	129	98
1914 . . .	149	212	131	104
1919 . . .	191	512	275	105
1921 . . .	147	378	196	131
1923 . . .	186	534	205	132
1925 . . .	178	554	212	147

The figures in the last column, for relative output per head, are obtained by the admittedly crude method of correcting the value of the output by the change in the wholesale price index, and then for the increase in the number of workers. It is interesting to compare these results with those given by W. Thomas in an article on Increased Efficiency of American Industry, printed in the *American Economic Review* Supplement for March 1928, p. 122. Mr. Thomas has based his calculation directly on quantitative production figures derived from statistics of physical volume of production, and his figures for the number of persons engaged include salaried employers and proprietors as well as wage-earners. He gives the relative output per worker in manufactures as follows :—

TABLE III

1899	100
1904	104
1909	110
1914	108
1919	104
1921	107
1923	132
1925	147

The general movement indicated in Table III shows a fair correspondence with the results of Table II, with a rather remarkable coincidence in the last two figures. The only wide discrepancy is for the year 1921. This can be largely explained by the fact that, in Mr. Thomas' calculation, the inclusion of salaried employers raises the relative figure for the number of persons engaged (in 1921, a year of slump, the number of wage-earners was reduced in a much greater proportion, compared with the salaried personnel), and also because the correction for price changes is particularly unsatisfactory for 1921, when the index (1913 = 100) fell 30 points over the year.

The result obtained for 1921 in Table II must therefore be rejected: otherwise the method of correcting the value of net output for general price changes does not seem to work out as unsatisfactorily as is often suggested.

An interesting point that emerges is the comparatively low level of output per head in 1919 and 1921. This confirms the impression, also obtained by observation in this country, that the post-war boom was characterised by a relatively low total output produced by swollen labour staffs and sold at very high prices. In 1919, asserts Mr. Thomas, owing to post-war adjustments industrial efficiency was at a notoriously low level. It follows that the great increase in output per person in the U.S.A. between 1909 and 1925 was a late development brought about in the last four years of the period. The quotation of the post-war increased output in the U.S.A., with the implication that it is typical of the movement over the whole period under review does not present the case correctly.

Since the issue of Memorandum No. 6 the Board of Trade has published its summary of the Preliminary Reports of the 1924 Census of Production (*Board of Trade Journal*, September 20, 1928). This summary deals with the results for Great Britain only, whereas the Memorandum included the totals for Northern Ireland. In the Board of Trade comparison with 1907 the figures for Ireland are excluded in both years and outworkers are excluded from the number employed. The total exclusion of Ireland removes a limitation which affected the comparison between 1907 and 1924 made in Memorandum No. 6, but, as suggested in that Memorandum, the results are not greatly altered. Another correction, not made in the Memorandum, is the exclusion of the amounts of excise duties entering into the net output totals. The value added by these duties is not, of course, represented by physical output, and since such duties have very considerably

increased compared with the pre-war period, their exclusion reduces the original 1924 values in a greater measure.

	Great Britain.		As relatives.	
	1907.	1924.	1907.	1924.
Gross output . . . . (£ Mn.)	1698	3853		
Cost of material and of work given out to be done on goods . . (£ Mn.)	1009	2156		
Net output . . . . (£ Mn.)	689	1697	100	246
Less excise duties included . .	14	93		
(£ Mn.)	675	1604	100	238 [1]
Numbers employed . . . (000)	6687·5	7612·8	100	113·8
Net output per person employed . (£)	100·9	210·8	100	209

It may be of interest to record the separate results for Northern Ireland in 1924:

Gross value of output	£68 Mn.
Net value of output	£24 Mn.
Numbers employed	158,500.
Net output per person employed . . .	£151.

The Board of Trade is rightly chary of selecting any definite figure representing the change in prices over the period, which could be employed to reduce the 1924 output to 1907 values. The rise in the general index of wholesale prices over the period is given as between 83 and 88 per cent. If we apply the higher figure and the Board of Trade is careful not to do so—the quantum of the total net output in 1924 would show an increase on the 1907 quantum of 27 per cent. and the output per head an increase of 11 per cent. Since the use of the general wholesale price index to correct changes in the value of the net output seems to have worked out satisfactorily in the case of the U.S.A., the results obtained for Great Britain by the same method should not be rejected summarily. If we could accept this result, the increase in output, although not satisfactory over so long a period, is large enough to warrant some modification of the pessimistic conclusions concerning British industry, based on the assumption of no increase in output per head. Moreover, it fits in better with observed facts concerning the rise in the standard of living.

The Board of Trade seems inclined to favour the assumption

[1] Incorrectly stated in the *Board of Trade Journal*, September 20, 1928, Supplement, p. viii, col. 2, as a rise of 128 per cent.

of an average rise of about 100 per cent. in prices between 1907 and 1924, and on this assumption total net output would show an increase of 19 per cent. and output per head an increase of 5 per cent. The Board points out, what is clear from the relative figures for net output per head shown in the table above, that "if net output per head was only as great in 1924 as in 1907, the net effect of price changes cannot have been greater than that arising from a uniform increase of about 109 per cent. in prices."

We may summarise these calculations as follows:—

Price Index for 1924. (1907 = 100.)	Total quantitative net output in 1924. (1907 = 100.)	Quantitative output per head in 1924. (1907 = 100.)
180	132	115
190	125	110
200	119	105
210	113	100

Professor Bowley, in his Memorandum on a New Index Number of Wages (see Memorandum No. 12 of the Royal Economic Society). has presented a calculation of output changes in a somewhat different form. The gross output of 1924 is reduced to 1907 values by taking the change of price in manufactures over the period as + 95 per cent.; the cost of materials in 1924 is similarly reduced to 1907 values, but the change of price in this case is taken as + 75 per cent. Subtraction of the second result from the first gives the 1924 total net output in 1907 values and the increase works out at 13 per cent. Since the number of persons employed increased by 13·8 per cent. the conclusion is that output per head in 1924 was nearly the same as in 1907.

A rough interpolation in the U.S. results tabled above indicates an increase of about 30 per cent. in output per head in 1924 compared with 1907, and, as shown above, the increase was crowded into the last few years. Whether this increased output is a result of prosperity or the prosperity a result of the increased output, is not within the purview of this paper. It may be asserted, however, that at no time since 1920, and probably not even in that year, has the productive capacity of British labour and equipment been fully extended.

G. L. SCHWARTZ

SOME RECENT PUBLICATIONS ON INTER-ALLIED INDEBTEDNESS AND REPARATIONS.

Das internationale Schuldenproblem by J. FRIEDRICH in Moll's *Probleme des Geld und Finanzwesens,* Bd. VII. (Leipsic: Ak. Verlagsges. 1928. Pp. 352.)

The War Debts. An American view. By P. DEXTER and J. H. SEDGWICK. (New York: Macmillan. 1928. Pp. 173.)

Befreiungspolitik oder Beleihungspolitik? By M. J. BONN. (Berlin: S. Fischer. 1928. Pp. 139.)

American Loans to Germany. By R. R. KUCZYNSKI. (New York: Macmillan. 1928. Pp. 378.)

Transfer des réparations et le plan Dawes. By H. D. GIDEONSE. (Lausanne: Payot. 1928. Pp. 124.)

Reparationslasten und Kapitalbildung, B. 174. IV., Schr. d. Ver. f. Sozialp. By H. RITSCHL. (Munich: Duncker. 1928. Pp. 36.)

Il problema delle reparazioni. By E. FOSSATI, con pref. del. PROF. P. SUPINO. (Pavia: Università. 1928.)

The International Accounts. By C. LEWIS. (New York: Macmillan. 1928. Pp. 170.)

THE literature on inter-allied indebtedness and reparations is growing every day. Dr. Friedrich's book is a noteworthy contribution to this question. The title, however, is somewhat misleading. Instead of "The International Debt Problem" it should be called: "The History and Present Position of Inter-allied Indebtedness."

As a general review of the origin and the preliminary settlement of inter-allied indebtedness Dr. Friedrich's book is a good systematic survey of the whole question. The author has studied with great care all the materials concerning inter-allied debts and the immense literature on this subject. There are no original or important conclusions; perhaps the nationality of the author induced him to treat the inter-allied debt problem with some reserve, and he confined himself to a systematic review and statistical compilation—and he has done it with ability. We may note only that the author lays great stress on the fact that the Allied debtor nations have always tried to make their debts and

reparation payments interdependent (p. 121), and that in practice America becomes the ultimate receiver of the payments under the Dawes plan (p. 323), although all the Governments professed not to confuse the question of reparations with the question of debts. And the final settlement of inter-allied indebtedness, Dr. Friedrich contends, seems to be possible only with the simultaneous settlement of reparation payments (p. 137).

The author devotes much attention to the transfer problem. He thinks that this problem has not been considered with all the seriousness it deserves, because usually in the practical settlement the Allied Governments were guided only by capacity to pay. At the same time the debtor nations have tried to safeguard themselves in this respect by means of their demands against their own debtors or German reparations. Dr. Friedrich quite rightly describes the difficulties of the transfer problem: not only never before have economic difficulties of that kind been known (because only the Great War has created immense international debts with no assets behind them), but the chief creditor nations inevitably resort to protection, or antidumping, or safeguarding and reject deliveries in kind. Therefore reinvestment in the debtor nations became a necessity and a natural consequence.

The restoration of a stable currency and of a balanced budget were indispensable measures for the resumption of debt payments. The comparatively small initial instalments seem to be agreed to as a matter of precaution and in the concealed hope of further readjustment and alleviation. Dr. Friedrich gives a short review of the principal opinions on the moral and economic aspects of inter-allied indebtedness, and illustrates the inadequacy of all calculations of the so-called taxable capacity of the individual nations.

A good bibliography and statistical tables on the movement of inter-allied indebtedness are added in the appendix.

The book by Messrs. Dexter and Sedgwick is simply an attempt to draw together and consider the validity of some of the arguments for and against the payment of the war debts due to the United States. They consider that the present relations between the United States and the Allies are unsatisfactory, and that there is a growing antipathy in Europe to the United States. The desire of the United States to collect debts being the occasion and one of the causes of this enmity, the authors try to formulate "an American view" on the subject. It is not a "learned book," there are no footnote references to authorities or descriptions of the origin and nature of the Allied debts.

The authors criticise at some length especially Mr. Snowden's arguments for the cancellation of the Allied debt, and resent the expression used by Mr. Snowden, who called this debt an "enormous annual tribute"; the Americans "are, in fact, receiving payment of money which they lent and which the borrowers undertook to repay."

Messrs. Dexter and Sedgwick think that "the question of the war debts is not to be settled wholly by cold reasoning, and still less is it a legal question," but nevertheless they are inclined to give up what makes the conscience of some of their countrymen such as Professor Taussig uneasy. "If Americans can afford," they say, "to give up the money, they may do well to relieve the Allies from the reminder of inferiority" of a debtor Government, because "Sentiment is a factor in this present world of close communication and annihilated distances which the books and blackboards generally forget."

At last they come to the conclusion that Americans would do well to cancel the debts and put the burden of paying them on American taxpayers, provided they can make Europe really understand that it will not be possible to induce the United States to finance their next war. In the meantime Americans will also do well, they say, to stop lecturing Europe and instructing foreigners as to their own moral superiority, the magnificence of their ideals and the excellence of their methods in dealing with all human affairs.

Befreiungspolitik oder Beleihungspolitik? by Professor Bonn, is a theoretical discussion of the Reparations problem in popular form. He points out that reparations payments have been successful only because of subsequent reborrowing from America. Such a policy of borrowing does not lead to the liberation of Germany. The chief problem of reparations is the determination of the exact amount of Germany's debt. The author favours the substitution of the present reparation debt for privately floated debentures which will do away with the financial control of foreign nations and liberate the occupied regions of Germany. Such a substitution can be achieved only if the whole reparation debt is to be fixed at an amount bearable by the German nation.

The possibility of reparation payments will depend on a balanced State budget: not only should deficit be avoided at any price, but the system of an "extraordinary budget" which in the past used to be covered by new loans should be abolished. The author does not fear the rise of unemployment and the temporary lowering of the national standard in this case because only rigid

retrenchment and saving can alleviate the present position. Above all, the economic policy of Germany must be directed towards low production costs in German industry: the system of protective tariffs cannot help in existing circumstances. Still the margin left in the State budget after the deduction of revenues mortgaged for reparation payments is too narrow, and there is little hope that it will suffice.

No doubt Professor Bonn's theoretical discussion of the reparation problem is very able and impartial. But unfortunately it is, to my mind, too abstract and does not go to the root of the most important points at issue. It is no use talking about substitution of the reparation debt for private debentures before final settlement of the total amount of this debt. In practice it is impossible to avoid discussion of the so-called "capacity to pay," and here there are hardly any standards to be referred to. The reorganisation of industry, low cost of production and free trade are principles of paramount importance, but their realisation is confronted with insuperable difficulties.

Germany's capacity to pay and all the principles to be observed in this case have not yet been made sufficiently clear in the existing literature and official publications. Undoubtedly, no definite criteria can be formulated, and very often the discussion of this delicate question is obscured or influenced by the nationality or personal sympathies of the writers. Still, one deduction seems to be certain: much will simply depend on the attitude of America towards the Allied indebtedness, and there will be much friction between the reparation creditor nations and Germany; as soon as America shows its willingness to make concessions, the Allied governments will reduce their claims too.

There is no practical possibility for Europe of repaying its enormous debt to America without endangering European economic prosperity and European social peace. Imagine that a modern Portia were to insist on repayment of the Allied debt of 2400 millions according to what "*the words* (of the agreements) *expressly are*," viz. "in the United States gold coin of the present standard of weight and fineness"; it would take exactly one hundred and seven years to recount this money, if the money were to be delivered at the rate of two hundred half-eagles or sovereigns a minute during six office hours a day and 310 days a year. And still less to my mind is Germany capable of enduring for decenniums to come the present burden of the Dawes plan payments, at any rate by ordinary means of a normal trade balance, without endangering its normal economic development and social peace.

The American relending to Germany means only a postponement of an ultimate payment. A foreign debt with no assets behind it is always a calamity. Some kind of dumping and similar devices will be necessary, and the creditor nations will certainly try to protect themselves.

The tax burden of the individual nations is no appropriate criterion for measuring their respective capacities to pay: at any rate, in calculation of this kind the amount of internal public debt charge is to be deducted from the whole amount of taxation, because it means only a redistribution of national income. On the other hand, the taxes may be very high but their pressure may be low, namely, in cases where the proceeds are mostly devoted to productive purposes increasing the efficiency of the national industry. It is equally impossible to measure the prosperity of a nation by the consumption of certain commodities, because there may be a great difference and fluctuation in the savings impulses of a nation, and the Government has no means of influencing its population in this respect: this especially applies to countries, like Germany, which passed through a period of inflation.

Germany's reparation payments will chiefly go to the payment of Allied debt to the United States. The European debtor countries will practically get no refund of their assets destroyed by the Great War, and the chief difficulty of the transfer problem will lie with Germany. It has been argued lately that European payments to America are largely counterbalanced by American tourist expenditure in Europe (about 617 million dollars in 1927). No doubt this helps the transfer problem, but it is very difficult to convince the European workman of the necessity of lowering his standard of life simply because Europe "has to repay the American debt" or should facilitate American tourists in their enjoyments and worldly pleasures in Europe.

We should not draw too black a picture of the prospective settlement of the whole question. By means of reinvestment in Europe, tourist expenditure, deferment, artificially strained bank rate, etc., the problem will be solved, but at any rate Europe, and Germany in particular, will in the same degree be compelled to suffer economically and to postpone their social pacification and the healing the wounds of the terrible war. In spite of a remarkable recovery and great economic achievements Germany is weak in her capacity to pay because she is poor in natural resources, over-populated, her trade balance is necessarily unfavourable, wages are comparatively low and unemployment is rising, and must continue to rise with the progress of reorganisation of

industry. This in its turn means a danger and a menace to social peace.

The publication of Professor Kuczynski in the "Series on International Economics" issued by the Institute of Economics is a careful description of foreign loans contracted by Germany since the inauguration of the Dawes plan, viz. from 1924 to 1926. Special attention and detailed analysis is given to loans publicly offered to the United States. There is neither any attempt to draw conclusion as to the wisdom of such borrowing nor any appraisal of the character and terms of these loans.

After a general review of loans contracted by Germany and a description of some of the most important privately placed loans, Professor Kuczynski describes systematically all the details of the German loans publicly offered, analysing the prospectuses, applications and agreements and the terms of American loans, the purposes of such loans, the types of securities, the payment provisions, optional and compulsory amortisation, the yield to subscriber, the provisions for security and the burden to the borrower.

The total par value of German public borrowing from 1924 to 1926 in the United States appears to amount to 581 million dollars, and in other countries to 304 million dollars, a total of 885 million dollars, which figures include the reparation loan according to the Dawes plan; the annual charges will amount to approximately 70 million dollars in the average of years 1925–51. But these figures do not include German foreign obligations incurred through the sale of real estate, of securities, etc. during the inflation period. These items seem to be very considerable, as we may infer from the fact that the pre-war value of the Berlin real estate owned by foreigners is estimated 1 or 1½ milliard dollars.

Transfer des réparations et le plan Dawes, by Professor Gideonse, contains no new ideas or practical proposals. The author expounds the principal views on the transfer problem of the Dawes plan. He is of the opinion that Germany is capable of bearing the present annuities of the Dawes plan internally, but that the transfer of these sums is difficult and possible only by means of American reborrowing. The payment of the war indemnity of 1871 was based on the same principles, but at that time France had large assets abroad. Now Germany is the primary source of the payments and America the ultimate receiver. Therefore the attitude of the American Government will virtually determine the whole problem. Mr. Gideonse is optimistic in this respect, and he

cites in corroboration the words of Mr. Andrew Mellon, that " the entire foreign debt is not worth as much to the American people in dollars and cents as a prosperous Europe as a customer."

A detailed bibliography is annexed to Professor Gideonse's book. Together with the lists compiled by Dr. Curth in the *Weltwirtschaftliches Archiv* and by Dr. Friedrich, we have an almost complete bibliography of the most important publications on this problem.

Professor Ritschl points out in his paper, *Reparationslasten und Kapitalbildung*, with great emphasis that the transfer problem has obscured the real difficulty and danger of the Dawes plan, viz. the great burden of the reparation payments. It was never contemplated or supposed by the Dawes scheme that reparation payments should be replaced by further borrowing from America. Such borrowing is dangerous for the future and conceals the fact that Germany's indebtedness increases like an avalanche. A normal internal accumulation of capital is replaced by foreign accumulation at a high interest. Instead of a socially dangerous and psychologically difficult retrenchment of consumption by the German population, the only result of the reparation payments has been a diminution of internal accumulation. Ritschl hopes that the revision of the German indebtedness will bring a substantial reduction of the present burden. By the annulment of the internal debt during the inflation period the German nation as a whole has reaped no benefit, and there is no justification for a special burden on industry simply because one part of the German nation profited at the cost of the other.

Ritschl is perfectly right in this assertion : the annulment of public and private debts and mortgages through inflation has in no way increased the capacity of the German industry to pay (Sig. Pirelli's assumptions on this point are certainly erroneous), and the inflation calamity has only weakened Germany's economic strength.

On the whole Ritschl's little paper contains some important considerations in favour of the German cause.

Dott. Fossati's book is a student's work on the history of reparation and the first year and a half of the Dawes plan written under the auspices of Professor Supino of Pavia University. Having been finished in the beginning of 1926, this essay is, no doubt, out of date for the present-day reader, especially after the appearance of the well-known books of C. Bergmann and H. Schacht.

In questions of inter-allied indebtedness and reparations much

importance will be attached to statistical data presenting the results of the trade, service and financial operations between any given country and the rest of the world on comparative lines. *The International Accounts*, by Cleona Lewis, is a constructive criticism of methods of international accounts of this kind. The author not only gives a detailed review of existing publications on international accounts, but suggests his own methods. It is a very able critical study on the subject.

PAUL HAENSEL

SHAVIAN SOCIALISM.

The Intelligent Woman's Guide to Socialism and Capitalism. By BERNARD SHAW. (London: Constable. 1928. Pp. 495. 15*s*.)

MR. BERNARD SHAW has gallantly credited the intelligent woman with a large measure of assiduity, leisure, and money beyond what, on his own showing, she is likely to have. The melancholy fact about this book is that, of those who are as unlearned as it supposes, only one in a thousand will have money to buy it and time and energy to read it. Still Mr. Shaw can (and no doubt will) fairly reply that the force of this objection is much reduced by the fact that he is the author; for the chances that the ignorant and intelligent woman will get through four hundred and ninety-five pages of Shaw are anyhow greater than the chances that she would get through, say, three hundred pages of any of the introductions generously written by professional economists for her edification. I have said "the ignorant and intelligent woman," because throughout the greater part of the book the author does assume that his reader has never considered even the most elementary facts of her relationship to her landlord or her tradesmen; but it should be added that there are lapses from this standard, as when it is taken for granted that Torquemada will be a household name to her. And we may suspect that it is just when Mr. Shaw is writing on subjects that are comparatively fresh and interesting to himself (the Russian Revolution, for example) that he forgets to be didactic and becomes more than ordinarily interesting.

The plan of the book is simple. Defining Socialism as equality of income, the author explains why such equality is preferable to any conceivable form of inequality. Such alternatives as payment by deserts, payment by class, payment according to what you produce are rapidly disposed of, and the intelligent woman is thrown back on equality as the only basis of payment which cannot be shown to be stupid and immoral. She is offered also some positive arguments in its favour, as, for instance, that an equal distribution of income would make the production of different kinds of goods correspond pretty closely to the real need for them throughout the whole community. At present

everybody knows, or should know, that demand is a false index of need, because, as the economist (but not Mr. Shaw) would put it, the marginal utility of the money in which it is expressed is not the same to all consumers.

Absolute equality of money income must indeed, according to Shavian Socialism, be modified in one or two points. Differences in the agreeableness of different occupations must be compensated for by differences in the hours to be worked at them. At least so it appears in the early chapters, though later in the book (p. 328) we are told that brain-workers cannot work as long as manual workers, and that when we have allowed for periods of necessary rest and recuperation (which are not leisure) the true leisure time remaining ought to be roughly equal for all workers.

Mr. Shaw's next task is to show up the weaknesses of the present industrial system of inequality; and who could do this more delightfully than he? The inevitable conflict of private and public interest which Adam Smith did not see behind his invisible hand; the absurdities and wastes of our social classes with their artificial separations and their dysgenic limitations on marriage; the rise of Trade Unions pretending to overthrow capitalism and yet playing the capitalist's own game—these are fit targets for the Shavian darts. Most of the subject matter is necessarily an old tale rewritten, but on the subject of class Mr. Shaw allows himself more originality. The rise of the middle classes of professional workers living by their wits and providing the bulk of the active employers in pre-company industry he traces to the combined effects of primogeniture and large families, resulting in a handsome supply of younger sons with the speech and manners, but not the substance, of the prosperous gentry. But in our own time the growth of the joint stock company on the one hand, and the gradual opening of educational opportunities to the abler and more energetic sons of the proletarians on the other hand, have, he thinks, effectively broken down the once lucrative monopoly of the middle class; so that that class, in his view, is now "the least eligible" in the community. Having got so far, it seems a pity that Mr. Shaw did not go a little farther and do for the Socialists what so badly needs to be done—that is, restate their current theory of class relationships. Mr. Shaw recognises explicitly that the modern company has destroyed the old-fashioned employer; but unfortunately he has not taken account of the implications of this discovery when it comes to sorting us all out into our proper classes. Throughout most of

his book the old dualism of capitalist and proletarian appears unchallenged; and the author does not do more than remind us that we must not expect to find all the proletarians active militarists on the side of their class, nor all the capitalists upholding the privileges of theirs.

After an incisive examination of capitalism in general we are treated to some chapters about the system as it affects the intelligent woman in particular, with a digression about money and banking and the naughtiness of ignorant speculation. On these subjects Mr. Shaw is quite distressingly orthodox, except when he wishes, in common with most of his fellow socialists, to nationalise or municipalise the banks. He holds that it is the first duty of a government to maintain the stability of monetary values and he advocates the gold standard as more prudent than any fancy currency schemes. In these chapters he becomes so much like the professional economist that he is almost dull.

We are next told how the road to the equality which is socialism is paved with the inevitability of gradualness, and how violent measures without proper preparation are bound to defeat themselves. Equality, Mr. Shaw thinks, cannot be obtained without the public ownership and operation of nearly all industry; and this will not be brought about over-night. In fact we shall get there best by going on much as we are going, except that we might go rather faster, and with less quarrelling and more definite ideas about our destination. In the end we shall arrive at a point when we shall discover that such inequalities as remain are really not worth bothering about: and that will be socialism. This section of the book will annoy the doctrinaire socialists exceedingly. But, if it is not an impertinence to accuse Mr. Shaw of common-sense, it might be said that it is in these chapters that that quality is most conspicuously displayed.

In his last hundred pages Mr. Shaw allows himself the luxury of talking round his subject a little, saying his say about the bearing of socialism on marriage, on education, on religion, and on other aspects of the subject which are not primarily economic. Of these I will only say that both the professional economist (whose business, strictly speaking, they are not) and the intelligent woman (whose business they most decidedly are) will not put the book down without having read them.

And now for a little serious consideration of what Mr. Shaw's economics amount to. Lovers of equality (I am one) will naturally go a long way with him. Lovers of Shaw will have the same bias, for a different reason. Particularly forcible is his

appeal for equality on the ground of simplicity, and his emphasis on the arbitrary quantitative decisions that you must make once you admit inequalities. If we had only to decide who ought to be paid more than who, we might conceivably get a scheme of distribution which would at least roughly commend itself to popular ideas of reason and justice. But we have to do more than that. We have to say every time how much more A should have than B; and on that none of us can ever agree. The only possible solution is the present one—that A should have as much more as he can get. And that is persistently repugnant to some possibly inexplicable, but certainly widespread and tenacious, ideas about reason and justice alike.

Secondly, Mr. Shaw is to be thanked for repeatedly reminding the intelligent woman that she lives in a state of flux. The intelligent man, and not least the intelligent socialist, is extraordinarily apt to overlook this fact. Half the current discussions of socialism (on both sides) are stupid and barren because they oppose an ideal system to an existing condition of things which is described once for all in fixed terms. If Mr. Shaw can teach the active socialist propagandist (and he has tried very hard to make the point clear) that capitalism is not the same yesterday, to-day and to-morrow, he will have done more to create sense and order in economic life than by the instruction of any number of intelligent women in the elementary principles of money.

Lovers of equality and of Mr. Shaw will, however, alike regret the points at which the intelligent woman is either left without guidance or positively misled. She will, for example, put down this book with rather hazy ideas about the nature and purpose of saving. Mr. Shaw is obsessed with the idea that capital consists, not in instruments of production, but in the spare subsistence consumed by the workers who make these instruments. This is quite a harmless way of using the term, but it seems to have led him into some rather odd confusions, such as that we could not all save at once; and to rather pointless disquisitions about the impossibility (which no one denies) of "lunching on boiled aeroplanes" and "dining on toasted steam-hammers."

Again, though we would all like her to be cheerful, the intelligent woman must not be encouraged to live in a fool's paradise. She must be practical and realistic. But her teacher does give her a very rosy view of the wealth of the world in which she lives, or might easily live; and he does not forestall her questions with any convincing evidence as to ways and means. To

say (p. 38) that "if we each took our turn and did our bit in peace, as we had to do during the war, all the necessary feeding and clothing and housing and lighting could be done handsomely with less than half our present day's work," is to make a statement of quantitative fact which is not so generally admitted that we can dispense with quantitative evidence in its support. None is offered. Similarly in Chapter 25 Mr. Shaw dismisses very light-heartedly any misgivings that the intelligent woman may feel as to the danger of over-population. She may, at the moment, be compelled to limit her family for economic reasons; but it is to her womanly instinct rather than to her intelligence that her teacher appeals when he assures her that equality will, of itself, both abolish poverty and put any such necessity for birth control out of sight for a long time to come.

Not less serious is Mr. Shaw's complete silence on the subject of how the workers of the socialist world are to be distributed among the various occupations which they are to pursue. We are told that in that world it will be considered unladylike (and no doubt ungentlemanly also) to take your bit without also doing your bit: that idleness, and not work, will be thought vulgar and degrading. A large number of the hard-working and intelligent women who read this will be ready enough with the salutary comment, "And about time too." But it is not good for their education or for Mr. Shaw's socialism that the matter should be left there. And an author who has been so eloquent about the importance of quantitative decisions in his chapters on inequality of incomes has the less excuse for leaving it there. Certainly, we must all work; but who is to do what work, and how much? How many dockers do you want, and how many teachers? Again, in his discussion of nationalised banks, Mr. Shaw tells us that the publicly-owned banks would "distribute capital as cheaply as possible for the good of the country to all the businesses, large or small, that needed it"—in contrast to the "profiteering financier." But this, too, is not enough. Unless and until there is superabundance of capital for all demands the banks must decide somehow how much is to go to each worthy applicant.

The excuse for deserting the reader at this point is, no doubt, the difficulty of the problem. Mr. Shaw probably felt that his own intelligence was not equal to it, and on that account left it to that of the intelligent woman. For this he ought to have the sympathy of his fellow-socialist writers, of whom nearly all (not excluding his present critic) must probably plead guilty at

some time or other to having shirked this same problem. For this is indeed the most fundamental and the most obstinate difficulty that faces every lover of economic equality. As soon as incomes cease to be based on economic values they cease also to act as governors regulating the distribution of labour. To-day every wage is two things—something on which its recipient must try to live, and something to measure the need for workers in the particular calling for which it is offered. Likewise every profit is an index of demand as well as the stolen hoard of a profiteer.

Admitted that the present system of distributing labour by wage variations works abominably. Admitted that we do not all think alike about the relative attractiveness of various occupations, and that some people want to do dangerous work as much as I want to be safe and comfortable. Admitted that the obstacles to economic mobility of every kind are so enormous that it is a farce to pretend that most of us are more than immobile lumps of conservatism heaped in "non-competing groups." Admitted that our only machinery for hinting to the South Wales miners that the demand for their labour has diminished is atrocious and cruel. Yet the fact remains that we have only just begun to think of inventing any more rational and humane machinery to take its place. Progress with this invention is a most urgent necessity for any capitalist community which is not completely insensitive to human values; and it is particularly important for a capitalist community which, like ours, tempers the rigours of the labour market by minimum wage regulations. But the problem is a hundred times greater and more pressing for any society which, by equality of payment to all, divorces income from the economic value of work done, and thus finally deprives us of such poor guidance as we already have concerning our choice of occupation. And here we have no help from the Shavian oracle.

Finally, Mr. Shaw is guilty of a few minor inaccuracies against which the intelligent woman must be warned. No doubt it is impossible to write five hundred pages without a sprinkling of these; but the great should be peculiarly sensitive to the fact that a reputation is never a proper substitute for accuracy. The intelligent woman must not be led to believe that "the wages of all the miners are kept down to the poverty of the worst mines" (p. 109). Let her compare the Forest of Dean with the East Midland field, and she will learn better. On p. 113 Mr. Shaw, as a surtax payer, ought not to let the intelligent woman fear

that income tax and surtax alone at their present rates can ever mulct her of more than half her income. On p. 290 some figures relating to the National Debt are a little odd. Sinking Fund seems to have got thrown in with interest. Mr. Shaw, indeed, hastens to explain that he is using round figures only; but even round figures ought to make some pretence of squaring.

BARBARA WOOTTON

REVIEWS

A Study in Public Finance. By A. C. Pigou, M.A. (London: Macmillan & Co., Ltd. 1928. xvii + 323 pp.)

This is a difficult book to review. It is not, however, a difficult book to appraise. It has the qualities which have given its author the high position which he occupies among the world's economists. Because it deals always with real problems (particularly with such problems of public finance as come within the competence of the economist *qua* economist), and because it is conspicuously free from academic padding, it is a much more valuable book than the ordinary systematic treatise on public finance. But its difficulties (for the reviewer) are intimately related to these admirable qualities. Professor Pigou hews his way forward in a straight line through a succession of tangled problems. He evades no difficulties, and never pauses to give himself or his readers a rest. Nor is any time wasted in surveying familiar ground. Professor Pigou is consistently an explorer. His interest is always in the margins or frontiers where, by dint of painstaking analysis, new knowledge is to be had. Every chapter, therefore, bristles with difficulties. Almost every page, in fact, invites the reader to ponder either premises or inferences. Generally the result of such pondering will be to reassure the reader that he could have no safer guide than Professor Pigou. At a few points, however, he may be led to surmise that difficulties have been disposed of in too summary a fashion. For such reasons a really adequate review would take the form of a running commentary on the text. That being impracticable, the best that can be done is to select a few topics for comment.

One feature which sets the book apart from most of the older discussions of similar groups of problems and which helps to give it its value is the emphasis put upon the distinction between "transfer expenditures," which merely redistribute the money incomes of the members of the community, and "exhaustive expenditures," which determine directly the uses to which part of the community's productive resources shall be put. This distinction is fundamental, not only in public finance, but also, as I believe, in the theory of money (in respect of both private and public expenditures) and even in general economic theory.

Professor Pigou's analysis of the grounds upon which the distinction rests (in public finance) and his discussions, immediately following, of the sources of funds for exhaustive expenditure and of "the relation between what Government gets and what taxpayers and loan-makers surrender" are particularly good summaries, marked by clarity and penetration. Emphasis is also put upon the distinction between the "distributional" and the "announcement" aspects of taxation, and the distinction is employed in a helpful and fruitful way.

In what is said about the criteria of justice in taxation familiar matters are dealt with, but nothing is taken for granted and a satisfactory basis is sought for each conclusion. The minimum-sacrifice principle is approved, but it is suggested that the equal-sacrifice principle, properly interpreted, also points towards progressive taxation. On Bernouilli's hypothesis income receivers attach equal importance to equal percentage decrements from their incomes. (Why do writers take pains to deduce this result from the hypothesis? It *is* the hypothesis.) But Professor Pigou argues that some of the importance attached to the final increments of large incomes by their recipients is purely relative, so that the sacrifice which taxation requires of a large taxpayer is measurably reduced when others in the same income class are similarly treated. Against this finding it might be argued, I suppose, that what matters is the relative position which incomes of a given size have in the general income scale, and that progressive taxation alters that scale, while proportional taxation leaves it unchanged. These are matters of conjecture, however, and not perhaps of very profitable conjecture. Even on utilitarian principles, the taxpayer's "sacrifice" is related only loosely to the immediate pangs associated with the reduction of his income. Even if welfare be held to consist of "states of consciousness," we have no right to turn our backs upon the wisdom of the ages by assuming that a man's experienced happiness is some mathematical function of the size of his income. Progressive taxation really rests, not upon the premise that a small taxpayer attaches (at the time of "announcement") more importance to the marginal tenth of his income than a large taxpayer attaches to his marginal tenth, but upon the circumstance that the community as a whole, expressing its opinion through Government, regards the uses of the marginal tenth of the small taxpayer's income as more important than the uses of the large taxpayer's marginal tenth.

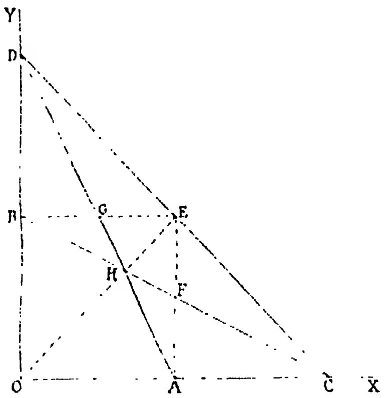
With reference to differentiation in taxation according to the way in which it affects different sorts of expenditures, Professor

Pigou suggests that, neglecting effects on distribution, "the best way of raising a given revenue, when the supply of work is not rigidly fixed, is by a system of taxes under which the rates become progressively higher as we pass from uses of very elastic demand or supply to uses where demand or supply are progressively less elastic." This suggestion is joined to Mr. Ramsey's findings (in this JOURNAL, March 1927) that, provided such independent demand and supply curves as exist are straight lines, and again neglecting distributional effects, the optimum system of proportional taxes yielding a given revenue will cut down the production of all commodities and services in equal proportions. These are important conclusions. I propose to examine them with the aid of a simple apparatus, which is independent, so far as may be, of particular assumptions respecting the nature of demand functions. For the sake of simplicity, I shall assume that costs are constant. It will be unnecessary, therefore, to take account of elasticity of supply as something apart from elasticity of demand.

A representative consumer purchases annually x units of commodity a and y units of b. The units are the amounts which can be purchased (before a tax is imposed) for a unit of money. With an income of OC (equal to OD) the consumer is able (costs being constant) to choose any combination $x.y$ indicated by a point on the line DC. Let the point preferred be E, indicating an even distribution of expenditure, so that BE and AE are equal. A tax of 100 per cent. *ad valorem* is imposed on b. The consumer's range of choice is then restricted to points on the line BC. What point he chooses will depend upon the relative elasticities of his demands for the two commodities. I shall define the point on one side of which demand is relatively elastic and on the other side of which it is relatively inelastic as the point of equal elasticity of demand. But just where and how will equal elasticity of demand show itself?

The point F (where AF = FE) represents unchanged expenditure for each of the two commodities. It is also the point at which BC is tangent to an indifference curve which has the form of a rectangular hyperbola and which has another point of tangency at G. But the indifference-curve clue is worthless, for any number of points can be found between H and C at which BC is tangent to the graph of some function of x and y which has positive curvature and is symmetrical with respect to OE. The point which really corresponds best with the conception of equal elasticity of demand is H, where the ratio y/x has the same value

as at E. In fact, whatever the form of their utility or demand functions, provided only that they are *alike* and are also *independent* (which does not exclude displacement disutility as a factor affecting demand), the two commodities will continue to be bought in fixed proportions, and H will be the preferred point. The presence of either joint demand or rival demand is not, in general, consistent with this result. At H two-thirds of the buyer's income will be expended for the taxed commodity, *b*, and one-third for *a*. His consumption of each will be smaller by a third than before the tax was imposed. Relatively inelastic demand for *b*, then, will show itself between H and B and relatively elastic demand between H and F. Between F and C the influence of rival demand becomes so potent a factor that the demand for both commodities might well be called elastic.



If the consumer's demand for *b* is altogether inelastic, he will station himself at B, doing without *a* entirely, and paying half of his income in taxes. If the tax had been imposed on *a*, the rate being the same, the range of choice would be defined by the line DA. In view of his inelastic demand for *b*, the consumer would station himself at G. He will be better off than if *b* were taxed, because he will be paying only half as much in taxes. An equal *amount* of revenue, however, could have been secured by taxing *b* at half as high a rate. In such case the point B would be moved upwards, and the line of choice, BC, would pass through G, which is the point which the consumer would choose. If a given amount of revenue is to be secured, which commodity is taxed is a matter of indifference to the consumer. It does not appear that the situation could be bettered by taxing both commodities.

We have not yet, however, considered the effects of returning

the proceeds of taxation through transfer expenditures. The purpose will be served by supposing that our representative consumer is also a representative creditor of the Government, and that in that capacity he gets back precisely what he pays as taxes. If b is taxed, if the consumer's demand for b is inelastic, and if, as before, he is stationed at G, his income will be increased by an amount equal to GE. This will enable him to get back to E. If a is taxed, and if the consumer is again stationed at G, an amount equal to GE will again be returned to him. By expending this amount for further increments of a, he again increases his income and again is enabled to increase his purchases. The final outcome will be the same regardless of whether the increase of revenue (and of transfer expenditure) is not checked or whether the *rate* of taxation is reduced so as to provide no more than the amount of revenue required. In either event the consumer's total money income, in the end, must be equal both to $x(1 + r) + y$ (where r is the rate of taxation) and to $2y + rx$, whence it follows that $x = y$. Again, therefore, he returns to E, and his economic welfare is unaffected by the circumstance that part of his money income has passed through the Treasury and back again or by the incidental circumstance that the relative prices of the commodities which he is accustomed to buy have been altered.

The precision of this result hinges upon the presence of rigidity in the demand for one or both commodities, showing itself either in complete inelasticity of demand for one commodity or in equal elasticity of demand for the two. It is obvious, however, that if a revenue equal to GE is to be secured from him, the consumer must be induced to station himself somewhere on a line drawn through G, parallel to DC. Unless the consumer's demand for the taxed commodity is exceedingly elastic, there will be one rate of taxation, and generally (though not invariably) only one rate, by means of which the desired result can be secured. The same end could be achieved by taxing the other commodity at (generally) a different rate, or by taxing both commodities, in which case any one of various combinations of rates would serve the purpose. The point upon this imaginary line which the consumer would prefer, and accordingly, as we must infer, the point at which his welfare is a maximum, is the point which he would choose if he had to pay income tax in an amount equal to GE. Because there is no large probability that this would be the point H, Mr. Ramsey's theorem does not seem to have much practical significance.

To get the closest possible approximation to the preferred

point, *both* commodities (or, more generally, *all* commodities) should be taxed at the same rate, so that the price of one commodity in terms of another will not be altered. If the proceeds of taxation are returned to the consumer, he would, in such case, resume his original station at E. A fairly good approximation to the optimum result could be secured by taxing only commodities which are known to be objects of distinctly inelastic demand. Unless the rates of taxation are excessive, the consumption of the taxed commodities will not generally be reduced much more than it would have been reduced by an equally productive income tax, and, in general, the composition of the consumer's budget will be much like what it would have been if the revenue had been secured by means of an income tax. Conceivably, however, an equally close approximation to the desired result might be secured, though more awkwardly, by *exempting* from taxation all commodities which are objects of distinctly inelastic demand, while taxing *all other* commodities at a uniform rate. If only a small number of commodities are taxed, and if the demand for some of them is distinctly elastic, there will be, of course, a considerable rearrangement of consumers' budgets. I do not think that even in such case the loss of welfare would be large, beyond what would have been occasioned by an income tax, apart from the costs entailed by the transfer of productive resources from one use to another. I am not even sure that it would necessarily be any greater than what would be inflicted by any other scheme of indirect taxation, other than the optimum scheme (uniform taxation).

It is easy to exaggerate the difference between the burden of a tax upon consumption and that of a tax of equal amount upon consumers' incomes. Neglecting distributive effects, there seems to be no reason to depart from the familiar rule (commonly held to rest upon administrative considerations) that commodities for which demand is inelastic should be selected as the objects of taxation. Nor is there any reason to diminish the weight which should be attached to the distributive considerations which indicate that luxuries, even when demand for them is elastic, may sometimes be proper objects of relatively heavy taxation.

ALLYN A. YOUNG

Germany under the Dawes Plan. By PROFESSOR MAX SERING (translated by S. MILTON HART). (London: P. S. King and Son. 1929. Pp. ix + 251. 10*s.* 6*d.*)

THIS book is practically a plea for the cancellation of the reparations, and because written by a clever man the book is clever. Nevertheless, since the question is approached far too much from the standpoint of one nation, the effect of a long and ably marshalled argument will almost inevitably be to leave most readers in this country dissatisfied and unpersuaded. The most interesting part of the book is the second half—the first is largely historical—in which Professor Sering discusses the extent of Germany's ability to pay reparations and presses his plea for abandoning altogether any claim to them.

One may agree with most of what he says on the subject of the productivity of credit, and the very different economic effects of foreign loans which are produced in countries in an early stage of development, and those taken up by older countries working "intensively"; yet the fact has to be faced that it is hopeless to expect that the problem of reparations can ever be settled on perfectly sound economic principles. Hence much of Sering's argumentation is mere beating of the air. But, further, even of Germany's case, which is what principally matters to him, there is surely some over-statement here. He contends that Germany's borrowing of foreign money only the more emphasises her poverty; yet he has to admit that this money has "brought German economy into gear," that by its help "real wages have recovered their pre-war level," and reckoning the social (insurance) contributions have "even exceeded it," and that "a vigorous will to economic reconstruction" and commercial improvement has been created by it. And if it were literally true that "high rates of interest and burdensome taxation" have in Germany "stopped the betterment processes in land cultivation, and have paralysed the competitive capacity of industry," does not this hold good equally of other European countries? Sering is horrified at the prospect of Germany's "unproductive expenditure" being increased by future reparation payments from a pre-war figure of £1 15*s.* a head to one of £3 13*s.*; but what about Great Britain's present corresponding expenditure (on war debt, pensions and defence services) of £13 a head?

Germany's case against the imposition of unreasonable reparations is hardly contested any longer, at least in this country, but

when her apologist proceeds to claim that all the late belligerent States should agree to wipe out reciprocally their war debt claims, it is necessary to ask what this would mean. Germany herself has already got rid of her pre-war public debts, Reich, State and municipal (not to speak of private debts), by the simple device of revaluating her currency—in effect by repudiating them; and France, Hungary, and other countries have followed the same method. Hence the answer to Sering's question, "What does Germany rightly owe?" could not disregard the many millions of pounds of which her foreign creditors have been forcibly deprived by post-war legislation which crossed out of the ledger these disagreeable figures. The confiscation of the private property of enemy nations was an indefensible act and created a vicious precedent, but the same may be said of the later repudiation of public and private debts wherever it occurred, and perhaps all the more so because the nationals of the defaulting States suffered jointly with the alien creditors. Moreover, no other European nation made sacrifices equal to those faced by Great Britain in her effort to pay for the war as it went on. The other belligerent countries allowed their war debts to accumulate, our Allies in particular borrowing from this country or on its credit. The indiscriminate cancellation of war debts would in these cases be ludicrously unfair. There is a strophe of Germany's greatest poet which begins, "The same thing does not suit everybody," and proceeds to warn men to regulate their attitudes and actions accordingly. Granting that from the standpoint of national economies *as a whole* the removal of the incubus of the war debts would be a blessing, nevertheless, any arbitrary method of procedure is impracticable; and none would have the least chance of acceptance which failed to be equitable all round. It would seem that the only approximately equitable method of readjusting war debts would be to pool all war costs, paid or not paid, and divide the aggregate amongst all the countries concerned according to agreed factors of weighting. It would be an essential part of any such arrangement, however, that the countries which had repudiated their foreign debts, wholly or in part, should make full restitution. How their own nationals should be treated is their own affair. Of course, action on these lines would not mean cancellation, but only redistribution, but it might lighten the burden where it now falls with undue weight.

W. H. DAWSON

Économique Rationelle. By F. DIVISIA. (Paris : Gaston Dion et Cie. Pp. 443. 30 *fr.* net.)

THIS is a volume in a series on applied mathematics, and the treatment is to a considerable extent mathematical, but not altogether so. The discussion of decreasing costs, for instance, and of periodical monetary crises, in the first half of the book, though assisted by diagrams, is not very technically mathematical, and the same may be said of the outline of the theory of distribution. In a book of this comparatively small size one cannot expect a full treatment of all problems of economic theory. So far as it goes, the discussion is clear and thorough. There is not, however, a full treatment of the different senses in which increasing and diminishing costs may be used. The cases of decreasing costs which are discussed seem to be from a short-period point of view; they are identified with heavy fixed capital, on which, for a period, fixed charges may or may not be earned, and there is interesting discussion of the conditions of competition. The author recognises that such establishments are designed for a normal output, but he does not have much to say about the question whether there is decreasing normal cost of production, at the normal output, as enterprises are increased in size. That is the condition which English economists have usually understood as properly to be described as cases of "increasing returns" or "decreasing costs." He recognises, however, in effect, that if this be the condition, mathematical treatment is not very appropriate until the monopoly situation comes about. Why it does not come about more quickly and universally is a problem which is discussed rather briefly (p. 152). The development of hydro-electric power may enable many small establishments to get the advantage of power-production on a large scale. Also it is suggested that with increase of capital, the rate of interest may fall so low that it ceases to be so important a factor in determining normal costs even in highly capitalised enterprises. The inference seems to be that in that case the tendency to monopoly would be less. Does that follow? The intensity of competition of highly capitalised industries would be less, because the scope for short-period departures from normal cost of production would be less, but it is not so clear how this would affect the tendency towards, or away from, diminishing normal costs with increase of size of the establishment.

On the subject of unemployment the author seems rather too optimistic, "il n'y a pas de chomage général permanent" (p. 185),

and " les crises ne peuvent être que momentanées " (p. 186). Is it not rather more true to say that fluctuations in business activity are the normal thing and endure over periods of years, and it is only in the most active parts of such periods that there is not a very appreciable amount of unemployment? And even in the most active phases it is not all industries that are at the peak at the same time. In many industries an unused margin exists much more often than not.

On the subject of capital and interest, the argument on pp. 187—92 is clearly set out, but is it not a mistake to regard capital solely as substitute for so much labour? Capital does not all consist of labour-saving machinery, its existence or non-existence to be determined simply by calculation of the interest and depreciation on the one hand, and wages saved on the other. It leads to an argument that in a given state of the arts and of population there is a stable equilibrium in the distribution of the national dividend between capital and labour. If wages were raised, the rate of interest being assumed constant, more labour-saving machinery would be introduced. Labour might be fully employed for a short time in constructing the machinery, but as soon as the machinery came into use, labour would be superabundant and wages would have to fall again. Conversely, if interest were raised, the wage level being unaltered, marginal machinery would be discarded when worn out, and the demand for labour would exceed the supply and raise wages until the original position were restored.

The mathematical theorist seems to come very near the position of the untutored working man in this argument. It is open to the double criticism—(1) that when one of these two variables is altered, the other need not remain unchanged, and, (2) the changes involve alteration in the magnitude of the income which is to be divided.

It is true that in the following chapter, dealing with increase of capital and population, these considerations are pointed out, but do they not also require to be taken into account even when considering a stationary state of the arts and of population?

In a further chapter the author explains at greater length, and with lucidity, some of the complications which make it impossible to put all the economic progress of society into equations. There is good reasoning in all this, but when it comes to the question whether Government action can influence wages, he seems to fall back on a belief in an unalterable law of distribution. At first he takes the same line with regard to Trade Unions, but a further discussion of

that subject considerably modifies his conclusion, to the extent that he admits that they may be in a position to accelerate the slow working of long-period tendencies to bring about an advance of wages, which, in the absence of concerted action, would be delayed by economic frictions and inertias.

The most interesting matter in the book is, however, probably the author's examination of the theory of measurement of changes in the value of money. He arrives, by his own method, at something like Irving Fisher's "best" index-number, but he carries the theoretical argument further. His monetary index is expressed in the form

$$\frac{dI}{I} = \frac{qdp}{qp}.$$

Then he shows that over a period of time theoretically perfect index-numbers are only obtainable by a process of integration. He admits it seems paradoxical to say that you cannot calculate the relative values of money in the years 1900 and 1800 merely on complete data for those two years, but contends that it is not so paradoxical if one considers that the nature of the things bought and sold may be very different. Certainly, taking this into account, one may admit that a succession of short-period ratios over the intervening time is required, but the mathematical argument by which the apparent paradox is proved does not seem to depend on there being any such changes in the character of the goods dealt in. Suppose that by 1900, after various changes in the course of the century, the goods dealt in are exactly the same, and the relative quantities are the same as in 1800, would not the data for the two years be sufficient?

The theory of equilibrium is dealt with at length. The author deals with the problem of money which has no utility otherwise than as a medium of exchange, showing that the equations of ophelimity do not apply to such money in the same sense as to goods which are desired for their own use. There results an absence of one necessary equation in the theory of equilibrium, which is supplied by the "équation circulatoire de la monnaie" taken from his earlier chapter. The author claims, and perhaps rightly, that this is a new contribution to the theory as expounded by Pareto.

C. F. BICKERDIKE

Dynamic Pricing (*Prisbildningsproblemet och föränderligheten*). By Dr. Gunnar Myrdal, University of Stockholm (Uppsala: Almqvist and Wiksell, 1927, Pp. vii + 254.)

Dr. Myrdal's work is a most interesting attempt to make the central economic theory more true, accomplished and, in an abstract sense, more realistic by collocating the general static theory with the dynamic factors. His book may prove to be a real achievement of economic theory. The author is not perhaps always right in his critique of other authors and in his own constructions—the task is really too difficult for that. But his book is an advance in the right direction. If in this short review of the book I do not enter upon criticism, but only try to give an idea of the problem and of the general lines of the author's attempt to solve it, the reason is that the book as yet has not appeared in English.

The starting-point for the author's analysis is the observation that there are two quite distinct problems which are caused by the dynamic conditions of the economic life, depending on the point of view from which the dynamic pricing is analysed (p. 21). We can look at this pricing as an enduring process, but also as a momentary relation of prices. The one problem refers to the fact that changes in the price-determining factors give cause to changes of the whole price system. The pricing in one moment is, therefore, together with the intervening primary changes, the *cause* of the pricing in the next one. This problem involves the whole theory of the business cycles. The other problem, again, derives its origin from the fact that changes have effects on the system of prices in each moment already before the changes have happened, and this result is produced through anticipation of what will happen. Thus, in every moment the pricing is a *functionally interdeterminate* system, where among the primarily determining factors are also the anticipations of future changes and the valuations of the risk element in these anticipations. This second problem—which logically is the first one, as it is the price-system *determinated in this way* which develops into another—is the object for Dr. Myrdal's analysis. The first problem, on the other hand, is only dealt with to the limited extent which is necessary for the treating of the second (chiefly in Chapter V on "The Dynamic Development under Abstract Suppositions").

From this basis the author in the first chapter gives an interesting criticism on the various theories of price-equilibrium (the classics, J. B. Clark, Walras, Marshall, etc.). Particularly

the criticism of Marshall's theory of "normal price" and his idea of "the representative firm" would interest an English reader. In the second chapter the author deals with the general theory of value. Both his criticism of the classical theory and of the modern theory of the subjective cost and marginal value is influenced by Professor Cassel, but, especially as to the last problem, the author contributes some new arguments. Perhaps the most interesting thing in this chapter is his treatment of the dynamic gains and losses in contradistinction to incomes and costs. The latter are *prices*, but the former are *changes of prices*.

The general notion of capital is considered in the third chapter. The dynamic theory presumes that capital is conceived in the meaning of everything having money value. The distinction between capital and land, etc., is not theoretically possible from a dynamic point of view. In this chapter Dr. Myrdal also considers the relevance of economic friction or "inertia." The fourth chapter is devoted to clearing up a distinction between "production changes" and "price changes," "production risks" and "price risks." The fifth chapter is mentioned above.

In the sixth chapter the author tries to make an investigation of the meaning of "economic risks" and of some philosophical and psychological facts bearing upon this notion. His exposition is based on a clear distinction between the facts that people have to stand risks of unequal sizes according to their unequal degree of knowledge and ability, that their apprehension of these risks may be rational or psychologically biased, and finally that they value the risks emotionally when realising them. This last-mentioned valuation of risks has, contrary to the apprehension of them, nothing to do with "rational" or "irrational," in fact nothing with logic. The distinction rests upon the primary difference between the emotional life and the intellectual reasoning. The author, who in this chapter delivers a criticism on F. H. Knight and on Irving Fisher, has obviously been influenced a good deal by J. M. Keynes' *Treatise on Probability*.

These six chapters form the first and introductory part of the book. In the second part the author on this ground-work develops a theory of profit. Every economic disposition has its possible alternatives, and the selection between them has consequences as to the date of future costs and incomes and their degree of certainty. The investigation must be concentrated upon the subjective state of the entrepreneur and his calculus. Here the task is not only to show the marginal effects of the dynamic and psychological factors, but also to cumulate these

effects. This cumulation is not at all a simple addition, as the simultaneousness of the effects means new interactions. Another problem, also treated in the book, is the dynamic consequence of credit, insurance and other time-contracts.

In the third and last part quite another problem is brought up for consideration. The author enters on an investigation of the effects of the dynamic state, not as above on the price-relations but on the technique. The technical coefficients are functionally determined by the prices; what is the general effect of these prices not being known beforehand with perfect certainty and of the whole production being risky? His treating of this practically very important but as far as I know not before scientifically investigated problem is ingenious, although naturally very abstract. The whole problem is, however, too intricate to permit an account in this short review.

ERIK LINDAHL

University of Uppsala.

The Mathematical Principles of the Theory of Wealth, 1838. By AUGUSTIN COURNOT. Translated by N. T. BACON. Reprinted 1927. (Macmillan: Pp. 209. 8*s*. 6*d*.)

A NEW edition of the English translation of Cournot has long been required, and Professor Fisher has added to its value by an introduction explanatory of the working out of the analysis.

It is to Cournot's work, published in 1838, that are usually referred the first explicit and systematic applications of mathematical method in economics. The demand and supply functions, and the elasticity of demand, were expressed as formulæ which became instruments for solving important problems, especially in the theories of monopoly and taxation. Modern analysis of monopoly still goes on lines which he marked out, though the symbolism is different, and his use of the cost function as total makes some difference in the conclusions.

The opportunity may be taken to point out that the neglect into which his work fell for a long time beset also that of others in the same field, and notably Whewell. It would be a great service if the papers of Whewell could be made as available as the work of Cournot, as they have the same independence and originality, and some problems are attacked by both about the same time.

For example, the principle of elasticity of demand, almost explicit in Lauderdale, is first reduced to a formula by Whewell in 1829; the formula $w = eu$, where w and u are the relative changes

in price and quantity. He restated the formula in another form in 1831, and in 1850 developed the general equation of demand and supply in the expression $p^1q^1 = pq\ (1 + mx)$, where $p^1 = p(1+x)$, and m is defined as the "specific rate of change." Like Cournot, he offers a classification of commodities according to critical values of m. It may be conceded to Mr. Keynes that Marshall gave the first geometrical interpretation of elasticity. The first *formula* is not Cournot's, but Whewell's, and is very nearly Lauderdale's. Both Lauderdale and Whewell regarded elasticities (in Marshall's sense) of greater than unity as exceptional. Whewell saw and explained the fact, more recently revived, of the difference between "point" and "arc" elasticity.

The instrument which Cournot does not use is the much-debated Consumer's Surplus. This is the more notable because, on the supply side, he works with the integral of the costs. As some modern writers wish to do, he put aside the idea of utility as "too indeterminate," and proceeds to an analysis of prices. The measurement of Consumers' Surplus in the utility sense is implicit in Jevons. The explicit graphical measurement of this Surplus in terms of money occurs in Fleeming Jenkin's second paper, published in 1871, though there is a restriction on its interpretation.

The bibliography of mathematical economics appended to this volume occupies 36 pages. What has been done for Cournot's work might with advantage be extended to some of the more inaccessible of these contributions.

D. H. MACGREGOR

Inter-Relationships of Supply and Prices. By G. F. WARREN and F. A. PEARSON. Published by the Cornell University Agricultural Experiment Station. Ithaca, New York. 1928. Pp. 144.

IN the ECONOMIC JOURNAL for December 1928 I reviewed Mr. F. C. Mills's investigation into *The Behaviour of Prices*. Mr. Mills's voluminous and valuable statistical examination into price fluctuations has been since supplemented by this scarcely less laborious inquiry by Messrs. Warren and Pearson. These authors have directed their studies to a much more limited field than that occupied by Mr. Mills. They have sought to discover, in the case of a number of agricultural products, the relationship between fluctuations in the size of the crop and fluctuations in the price received. The work has been carried out—so far as one can judge from outside—with great skill and completeness, and the results are of high interest. One's only doubt is as to whether the

initial data are quite good enough to stand the strain which has been placed on them. If the figures as to prices and as to crops which have been used are really reliable, then the authors' quantitative conclusions are of great theoretical importance. But even where the price statistics may be assumed to be fairly reliable, one cannot but feel that the statistics as to the size of the crop are almost inevitably subject to serious error. Probably the authors are alive to the serious strain which their accurate methods are putting upon the inaccurate initial data. But they do not warn the reader of this quite as explicitly as perhaps they ought. Nor do they attempt any evaluation of the margin of possible error which their results probably involve. Moreover, their estimation of a moving "normal" involves methods of elimination of trend which, even when they are the best available, are always dangerous.

However, one must not be ungenerous to writers who have performed so much labour upon the basis of which others can invent theories, whilst themselves, like Mr. Mills, remaining strangely free from attempts to philosophise, except in the most elementary way, about the results of so much laborious calculation. To one theoretical point, however, they do draw attention, and with strong emphasis. They point out that the price which the producer receives, in this case the farmer, is the only price which affects production; whilst the price which the consumer pays is the only price which affects his consumption. Now when general costs such as those of transport and distribution, which are not influenced one way or the other by particular circumstances relating to an individual crop, form a large part of the price paid by the ultimate consumer, a very large fluctuation in the price received by the farmer becomes a comparatively small percentage reduction of price by the time that it has reached the consumer. Violent fluctuations in farm prices may mean comparatively small fluctuations in retail prices; so that abnormal conditions of supply are not readily balanced by alterations of demand brought about by reasonable changes of price. A change of price sufficient to alter retail demand materially may mean a most violent alteration of the price received by the farmer. This is part of the explanation of the great inelasticity of demand exhibited by the authors' statistics. Connected with this, but not identical with it, is the point that when farmers are over-producing it is they, rather than distributors, who bear almost the whole brunt of what is happening. For example, in May 1927 food sold by American farmers was retailing in American cities for 72 per cent. above

		Area of Production.	Prices compared with Normal (100) when Production is—			
			20 per cent. below normal	10 per cent. below normal	10 per cent. above normal	20 per cent. above normal
Potatoes.	U.S. farm price 1871–1894	U.S.	129	113	90	81
	U.S. farm price 1895–1915	U.S.	135	115	88	78
	New York retail price 1897–1915	U.S.	106	103	97	95
	French farm price 1887–1914	France	118	108	93	87
	Berlin wholesale price 1902–1913	Germany	145	119	85	74
	Berlin retail price 1902–1913	Germany	131	113	89	80
Hay	U.S. farm price 1875–1913	U.S.	117	108	93	88
Apples	New York wholesale price 1894–1914	U.S.	117	108	94	88
Maize	U.S. farm price 1875–1913	U.S.	128	113	90	82
	U.S. farm price 1921–1925	U.S.	130	113	89	81
	Liverpool mixed American 1898–1913	U.S.	115	107	94	89
	U.S. farm price 1900–1915	World	140	117	87	76
Oats.	U.S. farm price 1875–1913	U.S.	123	110	91	84
	U.S. farm price 1899–1914	World	148	120	85	73
Barley.	U.S. farm price 1875–1913	U.S.	116	107	94	89
	U.S. farm price 1899–1913	World	116	107	94	89
Rice.	New Orleans wholesale 1905–1915	World	133	114	89	79
Wheat.	Liverpool spot price 1899–1913	World	125	111	91	83
	Kansas wholesale price 1899–1913	World	131	114	89	80
	Berlin contract 1899–1913	World	120	109	93	86
	Berlin contract 1899–1913	Germany	108	104	97	94
	Paris contract 1899–1913	France	112	105	95	91
Cotton.	U.S. farm price 1882–1913	U.S.	112	105	95	91
Hogs.	U.S. farm price 1878–1914	U.S.	114	106	95	90
Median of all the above			120	110	92	85

pre-war prices, but farmers were receiving only 46 per cent. above pre-war prices for it. The authors point out further, that financial deflation, for example, increases the violence of farm price fluctuations, because freight rates and handling charges are slow in such circumstances to change, yet represent such a large part of the retail prices that any given change in retail prices necessary to dispose of a large supply represents a very high percentage of the farm price.

It is curious that whilst this book is almost entirely concerned with calculations as to the elasticity of demand, this technical term is not, I think, anywhere mentioned therein. It is of so much interest to economists to get some sort of idea, however rough, as to the order of magnitude of elasticities in actual practice, that I have extracted the following table from the authors' results. It will be seen that, taking the median of the various items, the short-period elasticity of demand, when calculated (generally speaking) in terms of the farm price, is remarkably near to unity.

One further example quoted by the authors is worth giving :—
"Before the war, when the world wheat crop was 10 per cent. below normal, wholesale prices were 9 per cent. above normal in Berlin, 11 per cent. above normal in Liverpool, 14 per cent. above normal in Kansas City, and 16 per cent. above normal in Minneapolis. At Saratov, Russia, wholesale prices were 22 per cent. above normal."

The authors' inquiries relate almost entirely to agricultural produce. But a few items relating to industrial products suggest that the response of supply to abnormal conditions is much more easily affected than in the case of agriculture. This leads the authors to the following generalisation: —"The steel plant may be left idle while the workmen are unemployed, but a farm cannot be put into cold storage. The farmer is working for himself. He cannot discharge himself and stop production until prices rise. If the farm is closed up the farmer must abandon his business and his home. When an agricultural region is once settled, homes built, and a lifetime of labour spent in creating a farm, a rise in distributing costs between this region and its markets will be borne by the farmers for an indefinite length of time unless the rise is so drastic as to destroy all values and lead people to abandon all their property and go elsewhere."

Mr. Warren and Mr. Pearson deserve the gratitude of economists for a most interesting and painstaking piece of pioneer work.

J. M. KEYNES

Post-War Banking Policy. By the RT. HON. R. MCKENNA. (Heinemann. Pp. 149. 7*s.* 6*d.*)

THE RT. HON. R. MCKENNA has been Chairman of the Midland Bank since 1919. In that capacity he has followed the example set by his predecessor, the late Sir Edward Holden, of devoting the greater part of his annual address to the shareholders of the bank to matters of cosmopolitan interest. Since the outstanding purpose of each of the addresses now collected into the present volume is to relate contemporary developments in money and banking to the country's economic position, this book has been given the title of *Post-War Banking Policy.*

With the exception of that delivered in 1923 (which has been omitted in favour of an address to the American Bankers' Convention because "its main subject is highly technical and of only temporary interest"), the speeches are reproduced as originally given. For this reason it is unnecessary to give the content of each now. It should be mentioned, however, that the address substituted was delivered in 1922, and consists of a very able, detailed and clear discussion of the problem of Reparations and International Debts. Although the conclusions reached are by now familiar to economists, the address will repay reading for the sake of the incisive argument.

As for the remaining speeches, mention may be made of some points which arise as a result of the opportunity of re-reading, and of considering the addresses as a whole. Perhaps the most important point concerns Mr. McKenna's insistence on the significance of the monetary factor as an outstanding cause of the economic dislocation we have experienced since 1921. In that year he expressed himself as being opposed to the deflationary policy proposed by the Treasury with the double object of offsetting inflation and of restoring the gold standard—which was to be accomplished by means of extra taxation, high interest rates, and the restriction of credit. He urged that the only kind of deflation which was desirable was that resulting from augmented production. For this reason he averred that, in the meantime, "Our financial policy should be one which stimulates production and trade" (p. 35). The equivalent of this view he expressed again in 1922 (p. 38), 1924 (p. 79), and 1926 (p. 110). The climax to this line of thought appears in the speech of 1927. In this he did not hesitate to attack the "rigidity of the Bank of England system" (p. 134), and called for an inquiry into its working. The justification for this attack he found in the rise of the deposits of

the reporting member banks of the Federal Reserve System by £891 million from November 1922 to November 1926, contrasted with a fall of £122 million in those of the ten London Clearing Banks. While, moreover, the former increase was associated with a relatively unchanged price level, the latter decrease had been accompanied by a decline in the price level. In seeking for causes of these opposed results he found that the former resulted from the elasticity of the Federal Reserve System, which contrasted with the inelasticity of the English system, excessive control of which was vested in the Bank of England. In short, the deflationary policy imposed by the Treasury and the Bank of England was a prime cause of depression (p. 121 *et seq.*).

Comment may be made that Mr. McKenna did not correct these nominal figures of deposits for the price levels at the two dates, and thus display the respective differences between " real " deposit totals. Nor did he take account of the respective volumes of our currency, although he did quote the American figures. But these omissions do not invalidate the argument. It is more to the point to realise that his analysis shows that he has definitely ranged himself on the side of those economists who attach preponderant importance to the rational control of the monetary machine as a means of obtaining control over the trade cycle. In this, and in demanding a re-consideration of the outworn provisions of the 1844 Act, he has gone further than (and provoked to disagreement) other bank Chairmen. And his insistence on the latter point, at any rate, will be acceptable to the majority of English economists.

Another feature of the addresses, not of such great moment but nevertheless worthy of the clear stress laid upon it, is his handling of the rough generalisation that bank loans ordinarily create deposits. The illustration of this was the main theme of the address given in 1920; but its implications are referred to throughout. This contrasts with the inaccurate views propounded by the late Dr. Leaf, his adherence to which persisted despite criticism. In opposition to Mr. McKenna's accuracy here, however, it is to be hoped that such statements as " Bank loans and their repayments, bank purchases and sales are in substance the sole causes of variation in the amount of our money " (p. 77), may in future editions receive more qualification than that possible in the argument of the relevant speech. Similarly, there is ground for quarrel with a generalisation almost antithetical to this one, stating that " Indirectly, therefore, the Bank of England is in practice the controller of the volume of money " (p. 127). In

particular this denies any power of control to the joint-stock banks, the existence of which is testified by the history of war and post-war years.

Another point calling for notice is Mr. McKenna's insistence on the unmitigated burden of heavy taxation. In this he takes the usual business view, and displays clear-cut and unqualified opposition (pp. 32, 39, 49, 50, 107). But his pointed reference to the necessity which business men were under of borrowing from the banks in 1921 in order to meet their taxes (p. 32) is not without significance for the tax burden of that period.

The last main feature to which attention may be called here concerns the reference to the need for research on the possibility of the control of credit. At the end of the 1928 speech he showed this was hindered by the absence of adequate banking statistics (p. 149). It is agreeable to find his recognition of the importance of the point; but it is to be deplored that he saw no need for individual banks to set an example. Instead, he argued that co-operation between all the banks was essential for their preparation. Surely, however, by reason of the existence of the various banking associations, this co-operation is possible, and need not longer be delayed.

On all the points mentioned above Mr. McKenna's views have, throughout the speeches, remained constant; this is perhaps the greatest tribute to them that can be paid. An inconsistency may be detected when, in contrast to the McKenna of 1921, who argued against the proposed Treasury policy of deflation, the McKenna of 1927 is found saying, "Deflation, even rigorous deflation, was a harsh necessity in 1920 and 1921" (p. 132). Again, beyond minor printing errors, the only inaccuracy of fact appears on p. 53 of the address delivered in 1922. There the fiduciary issue of the Bank of England is given as £18,540,000. It should, of course, be £19,750,000.

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Les Batailles du Franc. By GEORGES LACHAPELLE. (Paris: Félix Alcan. 1928. Pp. 256. 30 *frs.*)

La Stabilisation du Franc. By FERNAND LEURENCE. (Paris: Marcel Giard. 1926. Pp. 195. 12 *frs.*)

La Politique Monétaire de la France, 1924–1928. By PIERRE FRAYSSINET. (Paris: Recueil Sirey. 1928. Pp. 299.)

La Restauration Financière de la France. By RAYMOND POINCARÉ. (Paris: Payot. 1928. Pp. 168. 20 *frs.*)

La Réforme Financière et Monétaire en Belgique. By HENRI FOURNIER. (Paris : Marcel Giard. 1927. Pp. 254. 25 *frs.*)
La Monnaie en Europe Centrale. By ELEMÉR HANTOS. (Paris : Marcel Giard. 1927. Pp. 256.)
Le Retour à l'Étalon-Or. By GEORGES LACOUT. (Paris : Payot. 1926. Pp. 246. 24 *frs.*)
La Réforme Monétaire anglaise. By GEORGES GAUSSEL. (Paris : Les Presses Universitaires de France. 1928. Pp. 160. 20 *frs.*)

THESE eight volumes deal with different aspects of the problem of monetary reconstruction in Europe. For the most part they are descriptive of the successive efforts which were made under different sets of governing conditions to put an end to inflation and to recover monetary stability. Such a topic allows of different modes of treatment, ranging from the analytical to the historical. M. Lachapelle's narrative in particular covers a vast area. It deals with the financial conduct of the war in France, the Peace Treaty, reparations and the Dawes Plan and the innumerable efforts which were more often mere proposals to check the downward plunge of the franc. The subject-matter is treated in its political setting rather than in relation to the theoretical implications of the problems raised, but it serves at least to bring out the changes in the trend of French opinion on such matters as the need for increased taxation and the possibility of exchange intervention by the Bank of France. M. Frayssinet and M. Leurence approach the problem from different angles. The former provides a much more exhaustive account of the crises and the policies of the last five years, while the latter develops at length the theory of money and its application in the recent histories of France and Belgium. In this case the treatment is statistical. Most of the other writers stress the importance of psychological factors which operate upon unstable and disorganised currencies and, at least by implication, suggest that these factors do not lend themselves to precise measurement. M. Leurence takes the view that even under abnormal conditions many of these factors can indeed be quantitatively determined, and he derives some comfort from the fact that in France the proportion of suicides to the total population shows a remarkable degree of constancy. He also insists upon the importance of measuring changes in the value of money by means of a representative cost-of-living index-number or, alternatively, by an index of retail prices and not by either the usual indices of wholesale prices or the height of the exchanges. (Incidentally he employs in the case of the United

States the Massachusetts cost-of-living index rather than that of the *Bureau of Labour.*) He then proceeds to estimate the amount of real purchasing power which the public desire to hold in the form of money, and finds that in France and Belgium between 1914 and 1926 the amount of real purchasing power held did not vary beyond 20 per cent. of its mean value. In Germany and Austria it did not exceed 40 to 50 per cent. of its mean value. It is not obvious, however, that these examples show the same "relative constancy" which was found in the case of the French suicides.

The amount of real purchasing power which the public desire to hold multiplied by the cost-of-living index gives a total which represents the monetary requirements of the public, and fluctuations in the rate of exchange occur when the actual supply of money exceeds or falls short of this total. As regards the mechanism of effecting exchange stability, the State must be in a position to exchange its notes against gold and gold against its notes, and accordingly must possess a stock of both. The question then arises as to how much gold will be necessary for this purpose. M. Leurence's answer is that it requires at most a stock of gold equal to the excess of the circulation over the minimum monetary requirements of the public. If the State possesses no gold for this purpose and is unable to borrow the amount necessary it can "amputate" the circulation to the amount of the excess. Another possibility would be to choose a rate of stabilisation which would involve a rise in the cost of living to a level determined by the ratio of the actual circulation to the amount of real purchasing power which the public desire to hold. That, of course, is to presuppose that the financial position is so reconstructed that further inflation is unnecessary. In view of the fact, however, that this volume was written in June 1926, it is of interest that the author should find it possible to recommend the stabilisation of the French franc at some rate within the limits of 90 and 138 to the pound sterling.

The details of the various crises are best described by M. Frayssinet, who also attempts a detailed analysis of the financial relations between the banks, the Treasury, and the *Caisse d'amortissement.* The Treasury, which in June 1926 had become almost devoid of resources, was able in a short time to purchase $60 millions for debt service in August and September, reconstitute the Morgan loan of $89 millions and repay 930 million francs to the Bank of France. From what sources did it acquire the means to do these things? Receipts from taxation and subscriptions to the *bons de la D. N.* provided a part, but not all.

The other part was obtained from the speculative purchases of francs on foreign account. Foreign speculators sold pounds and dollars against francs and deposited the francs with French banks, which in turn increased their purchases of *bons de la D. N.* or their deposits at the Treasury. In that way the Treasury was able to reborrow the francs which it had sold against foreign currencies, and the process could be repeated. In October, speculative forces drove the value of the franc still higher. M. Frayssinet argues that the Treasury had lost its control of the market partly on account of the functioning of the *Caisse d'amortissement,* which took over the administration of fully 48 milliards of *bons de la D. N.* and *bons ordinaires du Trésor.* In other words, at the very moment when speculative forces were driving the franc to a higher value the Treasury was deprived of a most useful resource of francs. Such a position naturally carried with it important dangers if a reverse movement had occurred. M. Frayssinet argues with some effect that the problem might have been simplified had the task of control been assigned at an earlier date to the central bank. M. Poincaré, on the other hand, was determined that the Bank of France should only assume control when the revalorisation of the franc was completed.

The question of the stabilisation crisis is one which has been much discussed. Among the various indices of economic activity some stress is laid upon the yield of the turnover tax. Between the last quarter of 1926 and the third quarter of 1927 the yield of this tax declined by 301 million francs to 2,108 millions. Allowance must be made, however, for the withdrawal of the tax on exports, a source which had yielded a revenue of about 43 millions per month. The statistics of loaded waggons showed a decline of 7 per cent. in the first eight months of 1927 as compared with the corresponding period in 1926, but only a decline of 2 per cent. in comparison with the corresponding period in 1925. The unemployment figures, which, despite M. Poincaré, seem only to be acceptable as indicating the trend rather than the magnitude of unemployment, rose rapidly up to February 1927 and thereafter declined. And an index of industrial production declined from 129 in October 1926 to 106 in April, after which it showed some slight recovery. M. Frayssinet concludes that there was some slackening of economic activity in relation to 1926, but that the conditions of 1926 were abnormal, and the decline was less conspicuous in relation to the previous year. In the same vein, M. Poincaré in his speeches to the Chamber of Deputies on 3rd and 4th February, 1928—reprinted in *La Restauration Financière de*

la France—while admitting that some crisis occurred, argues that its magnitude was not great. Looking to the future, the President of the Council appears to be less at ease, and while he believes that the methods of rationalisation have proved themselves to be important as regards the prosperity of Belgium, Germany and the United States, he does not anticipate their ready application to France. Rationalisation, he argues, means the sacrifice of individualism and originality, and these qualities French industry cannot afford to lose.

In M. Fournier's account and analysis of the Belgian problem it is claimed that the usual opinion that "stabilisation must necessarily provoke an economic crisis has been contradicted by the facts." But he admits that the readjustment has not yet been completed. Producers still enjoy a bounty which enables them to compete successfully in foreign markets, a bounty resulting from the relatively lower level of internal prices. He concludes, moreover, that some slackening of industrial activity in Belgium is probable, and anticipates that rationalisation will serve to some extent to safeguard the prosperity of the country.

M. Hantos raises a problem of a rather different order. Has the partition of Central Europe been of such a kind as to endanger the economic possibilities of the secession states? M. Hantos writes with the conviction that it has. He argues that the economic organisation of each of these states is too restricted and incomplete to make possible a lasting form of monetary stability. It is perhaps important for economists in this country to be kept aware of the economic consequences of the break-up of the former Austro-Hungarian Empire, which in many respects constituted a real economic unity. A new sense of independence, more especially in countries which formerly existed under some form of political domination, carries with it important dangers which are not eliminated by the most carefully drafted of bank charters. M. Hantos pleads for a post-stabilisation reform which will involve the placing of the various currencies of the secession states on a common footing with the additional idea of a monetary union after the model of that revived in Scandinavia.

M. Lacout and M. Gaussel deal with the problem of monetary reconstruction in the United Kingdom. With regard to the period since 1925 they offer different conclusions. According to M. Lacout the stability of sterling was safeguarded by resort to "artificial" measures; according to M. Gaussel the measures adopted were altogether "normal." M. Lacout finds that the lack of adjustment of British prices made it necessary to adopt a

policy of attracting foreign balances, reinforced in 1926 by the fortuitous movement of funds from France and Belgium under the influence of the crises in these countries.

It is perhaps true that in certain quarters there was a hope that a further rise in American prices would relieve the position. In fact, some such movement was in process from the second quarter of 1924 up to the time when the return to gold was effected. But that movement did not continue. On the contrary, American prices showed a marked downward tendency. Accordingly, there seems to be some point in distinguishing, as regards the difficulties experienced by British trade after the return to gold, between those difficulties which were associated with the process of readjustment and those which were associated with a falling level of world prices. It may, of course, be argued that the return to gold standard conditions implied an acceptance of the risk of a rise in the value of gold. To that extent there may be some point in M. Gaussel's contention that the gold problem should have been taken more fully into account by the Bradbury Committee.

M. Gaussel also discusses the general economic situation of Great Britain and attributes its difficulties (*a*) to the general impoverishment of the world, and (*b*) to the fact that British prices are too high, if not in relation to American prices at least in relation to continental prices. In terms of the formula, $N = P(K + RK')$ he holds that if British prices are too high, "it is not that N is too large, but that K and K′ are too small." But he makes no attempt to consider the possible means of acting on K and K′, even indirectly, while if he means that they cannot be acted upon he ignores the possibility of effecting a counter-balancing movement *via* N and R.

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The Works Council: a German Experiment in Industrial Democracy. By C. W. Guillebaud. (Cambridge University Press. Pp. 305. 16*s.*)

During the war, and for some years after, the elements in the problem of industrial relations that were most discussed were not those over which most disputes occurred. Disputes were still predominantly over wages; discussion was concerned mainly with the workers' claim to a share in the "control" of industry, or "industrial self-government." In this country the result of all this discussion in actual practice was small. It influenced the

phraseology of the Whitley Reports, led to a few interesting experiments in works committees, and rather widened the average employer's and trade union official's conception of the scope of collective bargaining, but otherwise came to nothing. In Germany the Revolution came just at the time when the demand for industrial self-government, and the belief in the possibility of attaining it through Works Councils, had their widest influence, and, by putting the Social Democrats into power, enabled and compelled the advocates of the claim to give some legislative effect to it. The outcome was the Works Councils Act of February 1920, the biggest innovation in the field of industrial relations in this generation. Mr. Guillebaud has made the results of this experiment available to students. He has observed it at close quarters from the beginning, and gives us not merely the letter of the law, but the actual working out of the scheme, its historical antecedents and the contemporary feelings that have moulded it, the problems with which it found itself faced, and its successes and failures in dealing with them, and its effects upon industrial relations in general.

The scheme, as Mr. Guillebaud explains it, had a double origin. It was a natural continuation and completion of a movement dating back to 1848, which had already before the war secured compulsory works rules in factories and the statutory workers' committees in mines, and during the war workers' committees in all works (employing more than fifty workers) brought under the Auxiliary Service Act. On the other hand, it was a concession to the aspirations which saw in the Russian Councils both an alternative to the bureaucratic trade unionism of Germany and the method of achieving social revolution. Similarly, the Councils when formed were the object of a double attack. Employers sought to obstruct and neutralise them as an invasion of their own necessary powers, or to exploit them as a tamer alternative to the union; while the Communists sought to make them the instrument of their attack both on the employers and on established trade unionism. It is not possible to summarise the narrative which makes it clear why the Councils survived. It may, however, be said that they could hardly have survived if the unions had not been able to get control of them and put their resources behind them; and it would have been difficult for the unions to succeed in this had the Councils possessed either funds of their own or a federal organisation of their own. In this country during the war the Ship Stewards' Movement built up a federal organisation of its own, which functioned in the big

strikes of 1917; if the 1917 Munitions Act had included, as was at one time discussed, compulsory works committees, English trade unions might have been faced with a very awkward constitutional problem at the end of the war. It is made clear also that the Works Council system is dependent on the system of decentralised Industrial Courts, to which appeals can be taken without delay; just as the enforcement of works rules under the Munitions Acts in this country depended on the Munitions Tribunals, courts of a similar type.

The experiment has been tried under very abnormal economic conditions, first the period of inflation, and then the period of depression that followed stabilisation. The strong bargaining position which labour occupied in the earlier years probably made it possible to establish the system; the employers' attack on it in the later years has not been without effect—Councils are moribund or non-existent over a large part of industry—but has failed to destroy it, and Mr. Guillebaud is of opinion that it has become a permanent part of the machinery of industrial relations. In spite of the abnormal conditions, or perhaps rather on account of the abnormal conditions, the scheme has had an exhaustive test, and valid inferences can be drawn. It is dependent on trade union support, but has reacted on the unions, compelling them to depart from the exclusively "craft" basis on which they have hitherto been organised. It has not satisfied the aspirations of the wage-earner after "control"; but it has given him additional safeguards of his economic status as a wage-earner, and possibly done something to elucidate the implications of "control." These safeguards are summarised (pp. 232–33) as the right to supervise the execution of industrial regulations and collective agreements, the interposition of a valuable "buffer" between the individual wage-earner and the management, the opportunity of supplementing the wider collective agreements by works agreements, and, most important, protection against arbitrary dismissal.

The word "control" obscures a distinction which was commonly ignored in the discussions of "workers' control" in this country—the distinction between control in the sense of direction and control in the sense of regulation. The German experiment has shown the difficulty of admitting workers to a share in the former, at any rate through the medium of Works Councils. The representatives elected had not the education and interests required to make use of the statutory opportunities provided; if they had the character required, they could not be sure of the support of

their constituents. The right of inspecting, and having explained, balance sheets and trading accounts appears to have been of little practical use; even the right to representation on Control Boards of companies has led employers rather to restrict the functions of Control Boards than to admit their workpeople to their confidence. Possibly more may come in time of these rights to financial information; but so far the impression is rather that the mass of the wage-earners are careless in the matter. On the other hand, as an organ of regulation of industrial conditions the Works Council has proved its value. Mr. Guillebaud really explains why the Councils have both failed to realise the hopes they excited and succeeded in justifying their institution. His examination of the experiment is worthy of comparison with Mr. and Mrs. Webb's work in its thoroughness, and constitutes, therefore, the most important contribution to the study of the problem of "industrial self-government" or "control" that has been made in this country.

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A Way of Order for Bituminous Coal. By WALTON H. HAMILTON and HELEN R. WRIGHT, with the aid of the Council and Staff of the Institute of Economics, U.S.A. (London: Allen and Unwin, 1928. Pp. xviii + 365. $2.50.)

The British Coal Dilemma. By ISADOR LUBIN and HELEN EVERETT, with the aid of the Council and Staff of the Institute of Economics, U.S.A. (London: Allen and Unwin, 1927. Pp. xiii + 370. 10*s*.)

Coal and its Conflicts. By JOHN R. RAYNES. (London: Ernest Benn, 1928. Pp. 342. 21*s*.)

LITTLE comfort is to be drawn perhaps from the knowledge that other countries are suffering equally with Great Britain from coal disorders; but there may be something to gain merely from learning that coal problems are apt to arise irrespective of national setting, time and special conditions. For if this country's present trouble is of a type widely experienced by others, the conclusion is at once suggested that the difficulty is inherent in the nature of the industry itself, rather than in temporary circumstance. The further conclusion would then follow that the remedy is most likely to be found in some modification of the industry's internal structure.

The British reader will find useful matter along this line of

thought in *A Way of Order for Bituminous Coal*, by Mr. Hamilton and Miss Wright—a survey of the bituminous area of the American coalfield. In following its pages he might readily imagine that the scene was set in South Wales or Northumbria, so close is the resemblance with conditions here. In the description of "The Plight of an Industry," a picture is drawn of medley and confusion, from which only one stable factor is distinguished: the demand for coal. "Over against this fixed demand," the authors write, is to be set a "capacity to produce far too unruly to be made to serve as a balance. The law of the land and the system of free enterprise alike invite whosoever will to take a chance at the prizes offered by mining. Rich and abundant deposits, easy of access, receptive to recovery, are a lure to the adventurous. . . . Fresh enterprises have been started to produce coal that could be had at much less expense from old mines near by. . . . A surplus of labourers has been drawn into the industry when a host of mine workers were already suffering from want of employment and earnings. . . . Thus has the sprawling domain of coal, beginning in the East, taken its wasteful and disorderly way towards the West and the South."

The situation thus traced is one whose outstanding features are disorganised marketing, over-production, insecurity of work, insecurity of profits, price-cutting, and wage-cutting—an almost exact replica of the position in Great Britain. The central point in the analysis is, however, that these conditions are due primarily to the existence of unrestrained competition. Under complete freedom of enterprise, unregulated and unco-ordinated, there must inevitably be failure, the authors say, to equate supply to demand. Supply tends always to overshoot demand: first, because the industry is speculative and draws in rash producers; secondly, because a mining company prefers as a rule to continue producing at no profit or slight loss rather than to close down completely; thirdly, because the loss incurred in any single mine is often less when it is worked at full capacity than when it is at half pressure; and finally, because the demand of consumers for coal is inelastic, scarcely expanding even though an excess of supply may lead to an extreme collapse of prices. With a fixed demand, and a supply bursting under the pressure of competition, the industry tends to be chronically in a state of excess production.

Such a finding, whilst based on American experience alone, has interest for Great Britain in that it tends to show that over-production—a condition often regarded here as purely a post-war

phenomenon—may, in the case of coal, arise from conditions more permanent, conditions which are intrinsic to the industry itself whenever its competitive organisation is untempered by any form of co-operative direction.

The same finding is implicit or explicit in the two further books for review here, both dealing directly with the coal problem in Great Britain. In *The British Coal Dilemma*, by Mr. Lubin and Miss Everett, the analysis of causes contains a chapter on "The Shortcomings of Individual Enterprise," in which it is stated: "The truth is that wherever coal production has been allowed free rein, unchecked by any central control, its capacity has in recent years outrun any probable needs for its product." Later it is added: "By its method and point of view the régime of individual control is unlikely to lead to an attack upon the problem of adjusting output to the needs of the market. It was better suited to the needs of a day when the market for coal was almost unlimited, when the primary concern of the mine owner . . . was to produce coal and ever more coal for a growing demand. To-day the menace of destructive competition from foreign countries and foreign substances forces a different problem upon the owners of British coal. To adjust to the modern situation requires a vast amount of scientific and economic information." The argument is continued that the collection of information and the correct regulation of output on the basis of this information are possible only to some central organisation combining the interests of the industry as a whole.

It may be inferred from certain passages in the third publication, *Coal and its Conflicts*, by Mr. John R. Raynes, that he also would confirm the opinion that pure and unrestricted competition must be abandoned if a permanent solution to the coal problem is to be found. In place of competitive selling he would prefer to set a nation-wide, and later an international, scheme for regulating and marketing the output of coal. "Holding up a periscope to peep into the future," he writes, "one sees prophetically the gradual cohesion of the coal marketing schemes of South Wales, the Five Counties, and Scotland, into one co-ordinated whole, possibly acting in concert with similar marketing schemes in France, Germany, Belgium, Poland and other countries of Europe. Output will be transferred to those undertakings that can produce it most economically, and will be regulated according to market requirements."

On the general analysis of the causes of disorder there is thus fairly general agreement. At least part of the difficulty is traced

to the régime itself of competitive anarchy, which fails to secure the adjustment of supply to demand. But the most difficult problem still remains. What degree of national or international control of supply is necessary to provide a remedy? And what precise form should the control take? On these points there are as many opinions as there are writers. Mr. Raynes, who gives little further indication of his solution than the statement quoted above, would seem to be contented with the extension of the existing coal-marketing schemes under the control of the mine owners. He recognises the importance of widening the sphere of control internationally, but appears to contemplate no intervention of the Government in the system, and no general amalgamation of companies. It would be simply a scheme of output regulation.

At the other extreme, Mr. Hamilton and Miss Wright, dealing with the American situation, rest little faith in anything but a comprehensive national trust. "The consolidation of all, or nearly all the coal companies into one giant corporation which was made a legal monopoly would obviously provide the unity which the coal industry demands. Moreover, it offers a means of reaching decisions with less confusion of tongues and a simpler means of carrying out policies than is offered by any form of monopoly which stops short of consolidation." In brief, what is suggested as a solution to the disorder in the American bituminous coalfields is the compulsory amalgamation of substantially all the mines under one national control. The Directorate would comprise fifteen members, five representing the interests of consumers, five appointed by the workers in the industry, four appointed by the administrative officials, and a chairman. This body would be "at once an agency of collective agreement and an active directorate of a large corporation."

The authors of *The British Coal Dilemma* adopt a position in between these two extremes. It is true that the remedy towards which they incline is nationalisation. But they readily admit its immense difficulties. Moreover, numerous alternatives are recognised. "Between private enterprise as now carried on and nationalisation there are many different kinds of public co-ordination and control which might conceivably be adopted to achieve the ends of an efficient industry. . . ."

If the attempt were to be made to combine the wisdom of the three inquiries, the task might be essayed on these lines. If new organisation is needed, there is a strong *prima facie* case for giving it the utmost simplicity possible, and for developing it on

principles already tried. Hence the bias, at least in Great Britain, would seem to be towards the relatively simple system touched upon by Mr. Raynes: the extension and coalescing of existing marketing schemes into one effective system of control. This would accomplish the major aim of reorganisation: to abolish competitive selling, and adjust the supply of coal to the requirements of the market. It would involve nothing more cumbrous than a national marketing system, capable of controlling effectively the output of all mines.

But there is a second aim which the other inquiries both emphasise: to secure the interests of the consumer. If the fixing of the price of coal were left entirely in the hands of an industrial monopoly, as suggested by Mr. Raynes, the position might be used not merely to restore the fortunes of the industry, but to hold up the community to ransom. Thus if the aim of securing *all* interests is to be attained, the national selling agency must provide in its constitution some means for giving expression to the concern of consumers. This would be an extremely delicate matter. To meet it Mr. Hamilton and Miss Wright propose that consumers should be represented directly upon the Board of Control of the national coal organisation. But one wonders whether a board composed partly of producers and partly of consumers, whose interests would be diametrically opposed, might not on occasions find itself at a complete deadlock, and unable to reach a decision. Especially would this be probable in the fixing of prices. Possibly a better suggestion for safeguarding the interests of both the industry and the consumers would be that of Professor J. H. Jones, under which the price of coal would be automatically fixed as a function of the costs of the modal (statistically representative) mining unit, and the only member of the Board of Control other than mine owners would be an expert accountant-economist delegated by the Government to ensure that the price-fixing was done according to rule. But the problem is not lightly dismissed; and it would have been helpful if the three books under review had focussed further attention upon this and other difficulties which would arise *after* their projected re-organisation of the coal industry had taken place.

A second point on which more discussion would have been fruitful—the most important point, socially, of any arising out of a proposal for output control—is the effect upon unemployment of limiting output. For the most part this question is neglected, and little reference is made in the three inquiries to possible methods of dealing with the additional unemployed. Mr. Raynes

says optimistically of his marketing proposal: "Losses on production will cease for the owners, and privation of standards of life will cease for the miners." But if these "losses on production" are eliminated through higher prices, involving the restriction of output, it is evident that fewer men will be employed, and that there will therefore be considerably increased "privation of standards of life" for the workers. Similarly, the authors of *The British Coal Dilemma*, whilst perceiving that nationalisation and rationalisation will involve much pruning and readjustment of the industry, offer little suggestion as to what may be done with the human material to be discarded. Clearly there is a gap here, a gap which can only be filled at present by some scheme for spreading out employment. To this end little else would seem effective than the reduction of working hours, carried out in proportion as prices and profits were restored. It is difficult to understand how the three writers who deal with the British situation should have overlooked this necessity of limiting hours of work as a corollary of output limitation, since both the Royal Commissions from which they liberally quote give special prominence to the necessity for the seven-hour day.

If it were attempted, then, to select from these three studies the most convincing proposals for reconstructing the industry, and to press them to their due conclusion, the result would be broadly this. As the first and most urgent need, it is suggested that competitive marketing should be abolished, and in its place a national agency set up for controlling the output and sale of coal. Then, as a corollary of the control of output, two further measures would be necessary. One, mentioned by the American inquiries, would be to ensure that consumers had a voice in the policy of the selling agency and in the fixing of the price of coal. The other, mainly overlooked, would be to reduce hours progressively with a view to countering the unemployment caused by reducing output.

Some reference should be made, in conclusion, to the special aim and content of each of the books for review. In the case of *Coal and its Conflicts* the approach is definitely historical. Mr. Raynes has set himself the task of giving an account of every important dispute in the industry since the discovery was first made that "black stones would burn." An immense amount of material has been gathered and engagingly presented. The book may give the impression, perhaps, that the author finds friends mainly amongst the owners; but the effect of his vigorous pursuit of the case, whilst destroying something of its poise, has been to

produce three hundred closely packed pages which read not less easily than a novel.

If a discussion of remedies is desired, the reader will find much that is suggestive in *The British Coal Dilemma.* The historical introduction in this case, though adequate, is much condensed; and more than half of the book is devoted to the analysis of causes and the weighing of evidence for different solutions. Consideration is given more especially to the proposal for nationalisation, which is contemplated, on the whole, with favour. The main difficulty confronting the discussion in this book is that it deals almost entirely with remedies proposed by *others*, and that these remedies are innumerable. Thus if twelve of them are sometimes grouped for criticism under one heading—say, nationalisation (there are at least twelve variants of the proposal to nationalise the coal industry)—the object being criticised is not a practical remedy, but a philosophy; and the only arguments which can be brought to bear are those relating to the broader philosophic issues. If, therefore, a certain lack of incisiveness is to be detected in some of the conclusions of *The British Coal Dilemma*, the defect lies mainly in the method of approach; and this method is virtually inevitable unless the authors are willing to adopt one specific solution as the basis of argument. The most noteworthy contribution of the book would seem to lie in its preliminary analysis of causes and of the economic background of present difficulties.

A Way of Order for Bituminous Coal is not to be judged by itself alone, since it is the sequel to *The Case of Bituminous Coal*, written by the same authors; it may, however, be read separately. Being a sequel, it confines attention mainly to the constructive proposals of the authors, arising out of their analysis in the earlier book. The scheme for co-ordinating the bituminous coal fields under a single national control is given in elaborate and thought-provoking detail; and whatever adverse criticisms of it may arise in the reader's mind, they are not likely to exceed in severity the commentaries, actually published at the end of the book, of two members of the Council of the Institute of Economics. The discussion is frank throughout and free from dogma.

J. R. BELLERBY

The Economics of Instalment Selling: a Study in Consumers' Credit, with special reference to the automobile. By E. R. A. SELIGMAN, MacVickar Professor of Political Economy, Columbia University. 2 vols. Pp. xii + 357 (Vol. I), 623 (Vol. II). (New York and London: Harper Bros. 1928.)

THESE two volumes are the result of team work. Professor Seligman was prompted to take up the investigation because he read in a weekly periodical " a dirge over political economy," which declared that the bankruptcy of economics was illustrated by the failure of its votaries to attack the subject of instalment selling.

He tells us that after a year's investigation and reflection he is convinced that an entirely new chapter is here opening up in both theory and business life. He finds that we stand on the brink of another revolution in economic science and economic life scarcely inferior to the Industrial Revolution.

This is a strong statement, and coming from such a source challenges the attention. These two volumes then must be studied carefully and the system sounded to the depths.

In the first place there is nothing very new about instalment selling. We have long been familiar with it in this country. Thus it is not a purely American expedient to meet new conditions. For many decades householders have been able to purchase their dwellings through building societies, and those organised on what is called the Mutual Benefit method have enabled members to enjoy a freehold fully paid for by their own and by fellow-members' subscriptions. These societies were so organised that when an arranged sum had accumulated it was balloted for, and the only condition as to its enjoyment by the winner of the ballot was the continuance of regular payments, either weekly or monthly. This system eliminated all question of interest on the purchase money—hence Mutual Benefit. Or, again, in more recent times, when capital for equipping factories is not always easy to get, manufacturers and makers of new machinery and processes have been willing to instal them, thus giving the immediate use of machines and other facilities, the payment being spread over an agreed period and liquidated by instalments. Other applications have been in the home, the most common form being gas-heating and cooking-stoves, pianos and other expensive articles of furniture.

Professor Seligman's book deals especially with the motor-car industry. The system has been applied to this industry in

Great Britain, and it is here, perhaps, as in America, that it has developed more fully than in any other direction. Here we have had Finance Corporations specially organised to take over risks and attend to the special conditions attendant on a fairly rapidly wasting asset. In America the system has been carried even further, as not only Finance Corporations but special Insurance and other Companies have been established with the object of rendering the system foolproof.

We are informed that " there are five different classes affected by the system of instalment sales : the purchaser of the automobile; the dealer, including under this head the wholesale dealer or distributor, the dealer proper or retail dealer and the sub-dealer; the finance company; the manufacturer; and the banker, together with the general investing public." The method, so far as the manufacturer is concerned, has been so framed as to allow continuous production all the year round. The normal supplies to distributors go through as usual and the balance of production is distributed presumably on an estimated demand, and the cost of this production is met by drawing three or four months' bills without recourse. One might criticise this as being likely to create a dangerous financial condition. It might be replied that in connection with the export of staple commodities, especially raw materials and cereals, there has been practised, for many decades, the method of drawing bills against shipment even though these goods were shipped to an unknown market, and that it has worked without danger, thanks to the intermediary of Accepting Houses. If this be so, why should not the anticipated demand for cars enable manufacturers to produce and recoup themselves by means of bills which would be met by specially constituted corporations? It should be pointed out, however, that in the case of the ordinary raw materials and food-stuffs of everyday life, the demand is practically certain, and the system enables the exporter from a distant country to get the advantage of the best market when the goods arrive near their destination. Whether it is sound to attempt to apply the system to what in England, at any rate, are regarded as luxury goods is another matter. The term luxury goods could justifiably be applied to cars not required for business or professional purposes. One might suggest that cars for business and professional purposes would be paid for in the ordinary way We are told that 60 per cent. of the cars sold in America and Canada are sold under the Instalment System. That means that 40 per cent. are sold outright, and it is just possible an investigation

might show that that is the proportion between cars for necessary purposes and cars for luxury purposes.

An English expert who favours the system, points out that "instalment selling means that credits have passed from the producer to the consumer, and that instead of there being large sums owing by producers, there are innumerable small sums owed by an almost incalculable number of people. The risk is beautifully spread from a credit point of view, and I cannot imagine that disaster could possibly ensue."

The spreading of risks over a large area is certainly a feature which merits thought and attention, as does also the fact that a manufacturer, who is able to place his manufacture of surplus cars in the hands of possible distributors, is able to effect a very great saving in storage accommodation, only to mention one. Nevertheless, to judge the system all round, it would be necessary to determine whether in the aggregate it would lead to either an increase or decrease of cost to the consumer. Of that, only long and continued experience could give a satisfactory answer.

As practised in this country in connection with furniture, undoubtedly there is an additional expense, and if that were true of all goods handled by the system it would seem to imply a lessening of purchasing power. The conditions in America and in this country are so very different that it is impossible to imagine that a decreased purchasing power in America affecting individual consumers would have the same serious effects as in this country. At the present moment, probably the most serious factor in causing unemployment here is the decreased purchasing power of the individual owing to increased taxation—national and local—and increased cost of living. One of the most necessary developments is to increase the purchasing power of the community. We want, above all, decreased costs not only to improve our internal markets but to help us in competing in foreign markets. Thus any system which might tend to increase costs and thereby decrease purchasing power should be viewed with suspicion.

Taking the contents of the book: in Volume I, Part I is historical and statistical, Part II is analytical and deals with the nature and characteristics of instalment credit and the effects of instalment credit. Volume II consists of seven appendices, dealing with Real Estate, the Volume of Retail Sales, the Consumer's Study, the Merchandise Study, the Dealer Study, the Repossession Study, and the Depression Study.

The great care and skill evidenced in the compilation of this interesting study, and the fact that Professor Seligman has been able to get the assistance not only of trained economists but of interested business parties, who have placed their cards on the table with what may be termed an almost hitherto unexampled candour, warrants one in saying that whether we are prepared to go the whole length of describing the movement as the greatest event in economics since the Industrial Revolution or no, we have here a possible advance in commercial and industrial organisation which only a very unwise man indeed would be prepared to dismiss without giving it profound and careful study. Those who may undertake that study with the object of assisting the business community in this country to come to a decision should be prepared to take into consideration the great variety of conditions affecting the business world. These affect no two countries alike, so that our investigator should be prepared to undertake an equal, if not a greater amount of work, assisted by competent economists and the best commercial brains of the country, before attempting to dogmatise.

A. W. KIRKALDY

Grain Growers' Co-operation in Western Canada. By HARALD S. PATTON, Ph.D. (Harvard University Press: Study No. 32. 1928. Pp. 471. 23s.)

THE literature upon the Pool movement is growing. A preliminary notice of the Canadian Wheat Pools appeared in the ECONOMIC JOURNAL of March 1925. It was based on articles written for the Grain Growers' Guide by Mr. J. T. Hull, who is now the managing editor of the *Scoop Shovel*, the official organ of the Manitoba Wheat Pool. In the *Year Book of Agricultural Co-operation in the British Empire*, 1928, edited by the Horace Plunkett Foundation (London, Routledge). Mr. Hull continued and expanded his narrative, showing the stimulus given by the Wheat Pools to other commodity pools and the reasons which compelled the fruit-growers of British Columbia to requisition the assistance of the Provincial Government in the marketing process. In January 1928 the Bureau of Agricultural Economics, Department of Agriculture, Washington, D.C., issued Technical Bulletin No. 63, *Co-operative Marketing of Grain in Western Canada*, by J. F. Booth. This excellent publication, which may be obtained for the nominal price of 20 cents, devotes the final section to a comparison of Co-operative Grain Marketing in the United States

and Canada. In the *Journal of Farm Economics* (U.S.A.), July 1928, Mr. Booth develops the comparison or rather the contrast between the local farmers' elevators and loose pools of the U.S.A. and the integrated marketing service of the Canadian West—with its three provincial pools and single Central Sales Agency, firm five-year contract, local and terminal elevators, and direct representation in eastern and foreign markets. And now comes Dr. Patton's scholarly treatise, a full-dress survey of Grain Growers' Co-operation in Western Canada, in which history and analysis are blended with subtle skill: Part I, The Struggle for Free Marketing; Part II, The Farmers' Co-operative Elevator Companies; Part III, The Movement for Collective Marketing, 1919–27.

Part III deals with war control: the Canadian Wheat Board (the Dominion authority which marketed the 1919 crop): the agitation for a renewal of control, which eventuated in the creation of the contract pool by the organised farmers on their own responsibility: and the achievements of the pools from October 1923, when Alberta led the way a season ahead of the sister provinces, to the time of writing, 1927. Dr. Patton prepared his study on the spot during the years when the farmers were disconcerting the prophets; and the judicial way in which he appraises the old ways of the farmers' co-operative companies and the new ways of the pools, neither depreciating the one nor foretelling disaster to the other, contrasts strongly with the petulant scepticism in which academic economists freely indulged in 1924. Friends and foes alike have recognised that the Pool's testing time would come in August 1928, when the five-year contract came up for renewal. The Pool came into existence on the rising market of 1924. Would it not go out of existence if the market should fall at the end of the term? The price of wheat slumped heavily between June and August 1928, but during this very period the contracts were successfully renewed, thus once again disconcerting the prophets. In 1925, 6, 7 the Pool handled over 50 per cent. of the crop; and the president of the Pool, Mr. A. J. McPhail, in reviewing the first chapter of Pool history, was able to say in October 1928, " We are beginning the second contract period with a larger measure of control than we have had at any time since the Pool began operations." And what a record! Total marketings over the period, including coarse grains, 750 million bushels; money turn-over one billion one hundred million dollars; accumulated elevator and commercial reserves over twenty million dollars. It says much for Dr. Patton's insight

that these results seem to follow quite naturally from the economic evolution which he unfolds over a period of some thirty years.

The author's section on operating results of the Wheat Pools pp. 339–50) is a model of terseness. He explodes the claim of the grain trade that non-pool farmers have received more. For the trade has used an average which neglected the fact that some 70 per cent. of the crop moves forward during three months of low prices. When this is allowed for, "the average price actually received by non-pool growers—especially those selling on street [*i.e.* the small shipper]—was appreciably less" (p. 343). Moreover the scheme is self-financing, and from the farmers' standpoint cost him less than nothing. For the Pool first deducts the selling costs of the Central Sales Agency—in 1926 one-fifth of one cent. per bushel; and the remainder is the base price, as at Fort William or Vancouver. From this the three provincial pools deduct (*a*) the cost of provincial operation, and (*b*) contributions to elevator and commercial reserves. The reserves are credited to the individual account of pool members and bear interest at 6 per cent. Thus the farmers of the Canadian West, without any previous accumulation of capital, are gradually becoming the owners of a vast business; and they derive from it in the meanwhile not only the periodic payments on the wheat they deliver, but also interest on their equity in the investment. From this it is clear how vital to the Canadian plan is the strict observance of the contract.

There are those who believe that the next forward step is the integration of co-operative supply on a modified pool basis. For this problem too the author supplies an admirable background. He shows the difficulties to be faced and the substantial success already achieved by the United Grain Growers in certain lines of supply. The Saskatchewan Co-operative Elevator Company was absorbed by the Saskatchewan Pool in 1926, but the United Grain Growers are still outside, in unhappy disharmony with the pools of all three provinces. They have done much for co-operation, much for the pool movement itself in the past. It may be that in the integration of supply a means may be found whereby the old and the new may get together. If that could be achieved, nobody, I suspect, would be more pleased than the author of this book, unless, perhaps, his reviewer.

Dr. Patton is very skilled in the art of comparison and contrast. He sums up detailed exposition in comparative résumés, as, for example, of the Manitoba Government elevators, which were a failure, with the Saskatchewan farmer-owned but govern-

ment-aided elevators, which were a success (p. 111). And there is a good comparison of the United Growers with the Saskatchewan "Co-op." (pp. 326–39). Dr. Patton finds the record of the latter more favourable, but this is mainly because the U.G.G. had to offset against its profits from grain-selling losses in co-operative supply. In Saskatchewan the losses on supply, relatively to achievement, were heavier, but they attached to the trading department of the Saskatchewan Grain Growers' Association. Therefore the superior record of the Saskatchewan "Co-op." is mainly a matter of different grouping. The book closes with a full bibliography and is in every way a credit to the Economic Studies of Harvard University.

C. R. FAY

The Triumphant Machine. By R. M. FOX. (London: The Hogarth Press. 1928. Pp. ix + 148.)
Industry's Coming of Age. By R. G. TUGWELL. (New York: Harcourt Brace & Company. 1927. Pp. viii + 274.)
Making Goods and Making Money. By H. TAYLOR. (New York: The Macmillan Company. 1928. Pp. viii + 287.)
The New Industrial Revolution. By W. MEAKIN. (London: Victor Gollancz, Ltd. 1928. Pp. 284.)

THESE four books are concerned with a single subject—the industrial situation—and all are trying to answer the question: *Quo vadis?*

The Triumphant Machine is a working-man's protest against mass production and the subjection of the workers to machinery. "Guidance, selection, interest, variety are the needs of youth." "Indifference, mass treatment, monotony are meted out to them." If there is little that is new in the book, and much of it might have been written in the early days of the Industrial Revolution, this is all the more to our discredit. The writer's criticisms, though tinged with bitterness, are seldom unjust or even exaggerated. But he has nothing outstanding in the way of practical remedies to offer. "To make industry safe for humanity," "to humanise industry instead of mechanising humanity," we must transform scientific management into social service. Otherwise, Mr. Fox can only advocate "workers' encroaching control," but though he recommends it earnestly, he is too much obsessed by the machine to allow himself much enthusiasm.

Professor Tugwell finds very little wrong with industry. His book is mainly descriptive and explanatory of the "startling rise

in our manifest power to produce goods." This new productivity is entirely a matter of management, in which the worker has neither part nor say. "The Industrial Revolution has completely denuded the worker of responsibility, just as, also, it has stolen away his skill. . . . The general policy of Workers' Organisations can help or hinder the progress of industry, but the worker on the job can scarcely affect the issue." This state of affairs, which breaks Mr. Fox's heart, troubles Professor Tugwell very little. It is a side issue: he accepts it without analysis and never mentions it again. He proceeds to discuss in detail nine general causes for our increased productivity, twenty-two specific or technical causes, and five barriers to productivity. It might have been thought that everything had now been said, but he adds and describes yet another six practical suggestions for increasing productivity.

There remains the vital question: What do we want from industry and how can we get it? The American worker receives 44 per cent. more to-day than he could have earned in 1909; he is twice as well off as the London workman and three times as well off as his Paris *confrère*. America spends on education more than all the rest of the world put together. Nevertheless there is poverty, there is child labour, there is waste and war. There is filth and disorder in our modern cities. But the responsibility for this lies in our faulty social arrangements: there is no inherent vice in industry. And Professor Tugwell is confident that we can get what we want, provided we are wise enough not to set our hearts on a new Athens or a new Florence or any of Mr. Wells's Utopias.

Mr. Horace Taylor, though less convinced, is also reasonably optimistic. He grips the reader's attention at the outset by his attractive title and his statement of an "economic anomaly." The social purpose of industry is to produce goods: the purpose of the individual who engages in industry is to make money. Are these two separate interests identical, or do they conflict? Can we still find comfort in Adam Smith's theory of the hidden hand, or must we regretfully subscribe to Professor Veblen's dictum that the highest achievement in business is the nearest approach to getting something for nothing? Mr. Taylor looks for his answer in the industry of to-day, and describes the position in his own country with the same minute detail as Professor Tugwell, whom he repeatedly quotes. But though the same ground is covered, the angle of observation is different. Professor Tugwell is concerned with volume and mass and the causes thereof. Mr.

Taylor reviews the growth and scope of industrial units, the conditions of internal efficiency and the influence of external relationships with the single aim of discovering whether or not it becomes increasingly necessary to make goods in order to make money. And he concludes that our modern large-scale production is definitely favourable to the interests of the community. Commitments of capital once made are largely irrevocable and irretrievable; fixed charges encourage production, and fixed charges are increasing. Professor Veblen's picture of the greedy monopolist withholding goods and services from the hungry crowd is not even a recognisable caricature of the modern industrialist. Indeed goods are so plentiful that we have to invent an art of salesmanship to "force them through a choking market" to the consumer. The goods are there: there remain the further question of equitable distribution, and a host of minor attendant problems, national and international, which Mr. Taylor indicates in his final chapter. Even the correspondence between social interests in making goods and individual interests in making money will not, he concludes, by itself unlock the door to an untroubled state of economic affairs.

Mr. Meakin's book is of a different order. It deals with the grim struggles of industry in the Old World instead of with its fabulous successes in the New. It describes what rationalisation has done for Germany and indicates what it might do for Great Britain. The term, we are told, is seldom used intelligently: sometimes it is confused with scientific management, at others it is identified with trustification and monopoly. Mr. Meakin refrains from defining, and confines himself to explaining it by means of an admirable description of the recent achievements of Germany in coal-mining, in steel production, in chemical manufacture and other industries. Rationalisation is shown to be the thorough-going, comprehensive reconstruction of an entire industry involving the cutting out of every duplicated activity, the closing down of overlapping departments, the scrapping of less efficient equipment, and above all the allocation of specialised production to every appropriate unit.

In the Ruhr the French occupation, following upon the chaos of inflation, had brought the mining industry to the verge of collapse. Reconstruction was the only alternative to bankruptcy. The process has been compared to a surgical operation, but in Mr. Meakin's opinion the total amount of distress caused by the crisis in German industry has been relatively much smaller than the widespread and persistent misery in the British coalfields,

The whole industry was reorganised by a carefully-thought-out, concerted plan, which could hardly have been carried out by any less-disciplined body of owners. There is no doubt that the existence of cartels paved the way for rationalisation. Complete modernisation has produced such a degree of efficiency that in the Ruhr the average is hardly removed from the best. "Every mine left in production is a huge coal-using factory, as well as a coal-getting undertaking, and all the associated coking, by-product and power enterprises are regarded as an integral part of the industry." An interesting development is the long-distance supply of gas, whereby towns more than a hundred miles from the collieries are supplied by these with gas at a cost smaller than that of production on the spot. The figures quoted show that the German coal industry can pay its way, allow liberally for depreciation and make a profit. (Incidentally, there appears to be a slight discrepancy between some of the figures on pp. 79–80.) The achievements of the Steel Trust are even more remarkable than those of the coalfield. The chemical industry was already in the hands of a single Trust before the war, and new activities were directed mainly to the adaptation of the industry to new needs and new conditions. By 1927 Germany had regained her supremacy as a seller of chemical products in the world market.

Although rationalisation has been most drastic in the basic industries, yet its principles have been applied in varying degrees to the textile industry, to engineering, and to the electrical trades. Everywhere there has been a desperate, gigantic effort to raise Germany out of the abyss, and anyone who chanced to visit the industrial districts, and more particularly the Ruhr, for the first time to-day would have considerable difficulty in believing what conditions obtained between 1923 and 1925.

The process could not have been carried out without the co operation of the workers, whose attitude to the movement is significant. The General Federation of Trade Unions and the organisations of salaried workers are agreed that rationalisation is a necessity. But they insist that the workers shall share the benefits, and shall not be left to bear the brunt of the hardships of the transition period. The men who are displaced by the initial changes must be financially assisted until they can be re-absorbed. Once the industry is rationalised, real wages must be raised. Whatever their own views of private enterprise and the future of industry, the Union leaders hold that "a joint effort by all parties is worth while" to tide over the existing crisis.

The moral for this country is obvious. In Chapter X, entitled

"The Choice of Labour," Mr. Meakin places the issue in the clearest possible terms before the leaders of the Trade Unions. The policy recently outlined by the General Council of the Trade Union Congress is a satisfactory enough reply, though Mr. Meakin is not too sanguine. "How far the Council will be able to convince the industrial movement as a whole of the wisdom of the decision is a matter for future revelation." If there is no chapter specifically entitled "The Choice for Employers" it is only because every line in the book is addressed to them. Important as the attitude of labour may be, and some of their most cherished traditions will have to be abandoned if success is to be achieved, "the policy of the employers will be the deciding factor." And at present, "if there is confusion of thought among the workers and their leaders," "it is at least matched by the chaotic mixture of ideas in the minds of the majority of employers." The best that Mr. Meakin can say for us is that there is beginning to be a change of outlook. But our worst danger is that rationalisation may be "carried out in long-drawn-out stages, without any general plan or co-ordination, with no effort to secure the co-operation of the Unions." In short, "muddling along" would be accompanied by infinite suffering. *The New Industrial Revolution* can be warmly recommended to every business man, every politician and every municipal authority in the country.

H. REYNARD

Economic Problems in Europe To-day. Edited by W. HENDERSON PRINGLE, M.A., LL.B. (London: A. and C. Black. 1928. Pp. xi + 146. 5s.)

The Economic Problems of Europe. By M. PHILIPS PRICE. (London: Allen and Unwin. 1928. Pp. 218. 8s. 6d.)

THE first of these volumes consists of lectures given by invited visitors at the City of Birmingham Commercial College in the autumn of 1927. Although thus the work of contributors who were obviously chosen as experts in their subjects, it suffers from a conspicuous lack of unity. The editor says that the lecturers were given an entirely free hand in developing their themes. The result is a collection of chapters very diverse in character and scope and unequal in their practical value. While it is certainly true, as the publishers tell us, that the essays may serve as valuable introductions to the study of the countries with which they deal, it cannot be claimed that they "show clearly the stage which these countries have reached in post-war recon-

struction." Writing on France, Mr. George Peel, as might be expected, concentrates his attention on national finance and financial policy, of which he has little except what is favourable to say, though incidentally his presentation of facts and figures will prove to many minds the unreasonableness of the successful French claim for the scaling down of her war debt to this country. Professor Salvemini likewise takes a rosy view of Italy's economic position and prospects, yet he is careful to show that his country was already again well on the upgrade before Mussolini's "March on Rome." He attributes, to the dictatorship which followed, three great financial blunders—the opportunity which was offered in January, 1923, for the annulment of the Italian war debt to Great Britain, the inflation of the currency in 1925–6, and the undue haste shown in revaluating the lira in 1926–7; though he drily admits that even if the Fascist Government had not committed these mistakes a different Government would have been guilty of others. Only in Salvemini's chapter does political feeling come strongly to light, though for this great allowance should be made.

Writing on Czecho-Slovakia, Dr. Seton Watson devotes to history a large amount of space which in a work of this kind might, perhaps, have been given more usefully to actual problems of the present day. His generous admiration of the skill and success with which the leading statesmen of the new and larger Bohemia have faced their difficult tasks is altogether justifiable, but one regrets to read his opinion that it is "essential" that Czecho-Slovakia should prevent the union of Austria with Germany, supposing these two independent States find union to be vital to their mutual interest. If Czecho-Slovakian statesmanship seriously contemplates any such action, even with the help of France, it would seem to be deteriorating, and the outlook for Europe is dismal. The chapter on Germany by Dr. W. H. Edwards, the London correspondent of a leading Berlin journal, might have been extended with advantage, yet within its limits the survey which it contains is excellent. It gives the impression that Germany has long passed the sulking stage, and in spite of the many harsh handicaps imposed on her by the Treaty of Versailles, particularly the outright annexation or temporary alienation of so much of her territory, she is rapidly "making good," and that practically all sections of the population are working to this end. On this subject Dr. Edwards writes: "The German workers and the workers' leaders agree with the sensible leaders of industry, who are happily in a majority, that what is

to be achieved for the people is a living wage for the workers, a fair interest on capital, the encouragement of research, and, above all at the present time, the rationalisation of industry, which means a maximum of output of standard quality out of a minimum of raw material and a minimum of human labour." The short section on Belgium is slight and scrappy, and will add nothing to the knowledge of any fairly well-informed reader. One must conclude that M. Emile Cammaerts had either no time or no inclination to play up to his colleagues. The chapter on Russia, too, is not altogether satisfactory, and gives the impression of having been written too much from the outside. It is full of generalisations and vague speculations as to the future, but the writer, Mr. Michael Farbman, seems as unable as most other people in this country to form any definite ideas as to where the Soviet Union is heading for, and how soon, if at all, it will get there.

Even if Mr. Price had not said in an introduction that his book is in part a reproduction of lectures given to Labour Colleges, and Mr. Sidney Webb had not written a "foreword" of warm commendation, a certain "tendentiousness" of thought and style, at once noticeable, would have prepared the reader for economic discussions of a somewhat unorthodox kind. That in itself is no fault—far from it; but in a serious work like this one does not like to be continually treated to worn-out *clichés* of party controversy. Here we have again the old definition of interest as "tribute." "Capitalism" and "capitalistic" enterprise are butts for the usual screeds: on one page the author speaks of "unrestrained predatory capitalism" and on the next of "predatory capitalistic exploitation." Again, it is neither good economics nor good history to say that "Manchesterism" fought a war with China to "make her people consume opium," that "Birminghamism" fought a war with the Boers to "make them construct railways made from the metal of the Black Country, to serve the mines," and that the late war was similarly due to the intrigues of financial and industrial interests. No doubt finance has a hand, more or less, in most wars, either as a propelling or a restraining force, but if any war in history was the direct work of diplomatists and statesmen it was the war of 1914–18.

There is, however, better than this in the book, and when Mr. Price gets upon the more neutral ground covered by the later chapters the reader will find much to inform him and to stimulate thought. All that he says about the attempts which are being made in various countries to solve the "production crisis"—

i.e. to adjust supply to a decreased or stationary demand—as by international combination and regulation of production, is timely. Again, in discussing the value of what he broadly calls "colonial territories" as spheres for trade and investment he is traversing ground as yet only partially explored. Although he may be thought to make rather too free and bold a use of figures, and in general to be too dogmatic, it is at least cheering to have his opinion that these markets offer such possibilities of expansion that they protect West European industrial countries from any immediate danger of catastrophic crises. Even the rivalry of the United States in the colonial markets does not appear to alarm him. An analysis of some figures quoted by him in this connection gives interesting results. These figures relate to British and American capital investments in Canada, and it will be found that while 46 per cent. of the American total relates to what may be regarded as industrial undertakings (comprising forests, paper and saw mills, mining, fisheries, and "general industries"), and only 16 per cent. to works of development (particularly railways and land), the corresponding proportions in the case of British investments are 19 per cent. and 50 per cent. respectively. A clear difference of standpoint, whether conscious or not, appears to be shown here, the capitalists of the mother country spending largely for the sake of the future, the American investors looking more for early results, and probably, as in South America, financing industries in order to work them.

In spite of all his criticism of "capitalism," it is satisfactory to have the writer's assurance that there is "no evidence of an economic breakdown in the national economy of Britain," and his admission that in spite of so much unemployment and short-time working, "the workers get roughly the same real values from the national income as before the war," though the amount left over as a surplus for luxury expenditure and savings for investment is less. He puts the fall in savings at from 16 per cent. in 1913 to 12 per cent, in 1924, but it is notable that a larger proportion of these savings is now invested in home industry, the part which goes abroad being correspondingly smaller; though the author agrees with Mr. J. M. Keynes that the latter figure should be still further reduced. Summing up his conclusions, the writer contends that for the prosperous development of Western and Central Europe (Great Britain being included) it will be necessary to re-establish the home markets by increasing the purchasing power of the masses, to push the export trade by raising the standard of living of the Asiatic and African "coolie populations,"

and to accelerate the new industrial revolution now in progress by a judicious application of a portion of the nation's savings in new schemes of internal development. He might have added two further important desiderata, which are (1) the increase of the real value of wages and salaries by bringing retail profits much further below the war-time level than they are at present, a question which the Food Council has yet to face seriously, and (2) the discouragement of violent economic changes at a time when industry is struggling desperately to get on its feet.

W. H. Dawson

A History of Lloyd's. By C. Wright and C. E. Fayle. (Macmillan & Co., Ltd. Pp. 475. 25*s*.)

Of all forms of business we should expect that of insurance by its very nature to be developed rather by corporate than individual enterprise.

It is remarkable, therefore, that the important business of marine insurance has been in the main developed, and is still conducted with great efficiency and success, by individual underwriters each personally responsible only for the insurances covered by himself. The underwriters are known all over the world as "Lloyd's," whose motto is, "Each for himself and not one for another." The History now before us is an official record of the stages by which that famous Corporation has progressed from its origins in the latter part of the seventeenth century. Marine insurance had not then become a specialised business, but was mainly undertaken by the Merchant Adventurers themselves as a side-line to their ordinary trading business. Prompt and reliable shipping and commercial news was then—as it is now—an important factor in the successful conduct of marine insurance. In default of any organisation for the circulation of news the merchant underwriters had to rely on personal intercourse for the exchange of the latest news which arrived daily from different parts of the world. A common meeting-place was therefore needed, and this was supplied by a coffee house kept by Edward Lloyd. The habit of frequenting this coffee house for the exchange of news by persons interested in shipping and foreign trading is the germ out of which has grown the present Corporation of Lloyd's.

For many years Lloyd's remained merely a convenient meeting-place kept by successive proprietors who catered specially for the shipping interests. But the incorporation in 1720 of two

insurance companies authorised to transact marine insurance naturally drew the private underwriters closer together and gave a more specialised character to Lloyd's Coffee House. It was not, however, until 1771 that the frequenters of Lloyd's "converted themselves from a chance assembly of individuals into an organised society."

For the next hundred years Lloyd's remained a society or club managed by a committee of members, until in 1871 a special Act of Parliament was passed converting the society into a legal Corporation.

In the official History the various stages in the growth of this society are recorded with ability and authority by the joint authors—Messrs. Charles Wright and C. Ernest Fayle—who have, of course, had access to all available records. The authors rightly claim that this unique institution "is a striking example of evolution. . . . Like all creatures of organic growth, Lloyd's at its point of highest development retains many traces of the conditions in which it was born." In its almost accidental origin and its haphazard development it is a remarkable example of the mysterious workings of the English genius. There was no cut-and-dried constitution. Until the Act of Incorporation in 1871 the society continued as free to alter its rules and regulations as any local cricket club. New practices grew up and old ones gradually became obsolete. The members carried on their own affairs and did not bother themselves about the rules of the body to which they belonged until some crisis arose which called for common action. The authors, referring to the absence of records of General Meetings over long periods, tell us, "The years 1788, 1789, 1790 and 1793 are all completely blank. It is highly characteristic that, at the last General Meeting in 1786, all business was postponed—and the next Meeting was not held until 1791!"

From the outset there were two matters which obviously invited common action. The first was the establishment of some news sheet, the editors of which would collect from all available sources and publish from time to time the latest shipping and mercantile news. The second was the preparation and maintenance of a register containing reliable particulars as to the condition and equipment of any ship whose hull or cargo might be offered for insurance.

It is significant that "Lloyd's List," which provides the underwriters with the latest intelligence, was established, not by the underwriters themselves, but by an enterprising successor of

Edward Lloyd in the ownership of the coffee house. Correspondents were appointed at the principal ports, and a very remarkable arrangement was made with the Postmaster-General by which the Lists of arrivals, sailings, etc. were forwarded by these correspondents addressed to the Postmaster-General, with the word "Lloyd's" in the corner, entirely free of postage. These Lists were opened immediately on arrival of the mails and sent to the Master of the Coffee House before the ordinary delivery of the letters. This arrangement, made in consideration of a payment of £200 divided between two Post Office officials, gave Lloyd's List in effect a monopoly of the shipping news. The provision of a register came a little later. In 1760 a society for the production of a Register Book of Shipping was formed by a group of underwriters, and this society was the direct ancestor of the Lloyd's Registry of to-day.

The importance of Lloyd's as a national institution was very much enhanced by the wars of the eighteenth century. And it was the long-drawn-out struggle with France, lasting almost continuously from 1793 to 1815, which ultimately established Lloyd's in the unique position it has since maintained. When war breaks out the marine insurance market is faced with a new problem. The risk of loss by capture or destruction by enemy action has to be covered. The business of the underwriters is enormously increased, but until some experience has been gained they have merely to guess at the proper premiums to charge. In 1914, thanks to the foresight of Mr. Asquith, a carefully-thought-out State Insurance Scheme was brought into action at the outset and this bore the brunt of the first shock of the war and continued to carry a large proportion of the war risks. During the Napoleonic wars the pace was slower. The underwriters had time to gain experience, and in spite of severe losses from time to time, British commerce prospered and British tonnage rose from 1,540,000 tons in 1792 to 2,616,000 tons in 1814. These conditions provided a golden opportunity to the skilful underwriter with adequate resources. There were, of course, failures, but the authors claim with justice that "the credit of the leading underwriters was never seriously shaken." An important by-product of the war was the establishment of intimate relations between Lloyd's and the Admiralty. As in the late war, it was found necessary to create a system of convoys, in the management and control of which the Admiralty sought and obtained the co-operation of Lloyd's. Eventually, in the words of the authors, "Lloyd's seems to have been regarded by both sides as the natural

channel of communication between the Admiralty and the Mercantile Marine."

It is in keeping with the character of Lloyd's that even when it had been recognised as an essential part of the national economy no attempt was made to set up a formal constitution. The correspondence with the Admiralty continued to be signed by the Masters of Lloyd's Coffee House, until in 1804 the office of "Secretary" was created. Early in that year the then Secretary of State for War—Lord Camden—had written declining "to enter into epistolary intercourse with the waiters of Lloyd's Coffee House"!

There have been important developments in recent years, notably the invasion of other fields of insurance. But the great period of organic growth ended with the close of the Napoleonic war in 1815.

The History of this society, which has succeeded in combining the freedom of individual enterprise with the power and authority of a great corporation, deserves the attention of every student of economic history.

C. R. V. COUTTS

History of the Royal Bank of Scotland, 1727–1927. By NEIL MUNRO, LL.D. (Edinburgh: Privately printed. R. & R. Clark, Ltd. 1928. Pp. xviii + 417.)

IT appears that the centenary of the Royal Bank of Scotland passed without any special note, but when the bi-centenary was reached in 1927, the Governor and Directors determined that the occasion should not pass without some permanent memorial. They were well advised in selecting the author of *John Splendid* and *Doom Castle* to write the history of the Bank. The Scottish banking system "has been recognised as probably the greatest and most original work which the genius of the Scottish people has produced," and so it is fitting that its history should have been already described, as for instance in Kerr's *History of Scottish Banking* and Graham's £1 *Note*, but, with the exception of the excellent statistical and annotated volume by C. W. Boase on *A Century of Banking in Dundee*, the individual banks still require to find chroniclers. There is a great advantage in obtaining the sequence of events in the case of a particular institution, as for instance when Mr. Neil Munro describes carefully the causes of the application for each new charter of the Royal Bank, or for successive issues of capital, or again the reasons for various absorptions of other institutions. While the author admirably relates the history of the Bank to contemporary events, he is

careful to cull from a patient study of the minutes various happenings of domestic interest, which have a much wider appeal, for, collected and arranged as these are, they will be indispensable to the economic historian who deals with the eighteenth and nineteenth centuries, and the art of the skilled literary craftsman has woven these into an exceedingly attractive whole.

The Royal Bank of Scotland was one of those institutions the capital of which was provided by the subscription of an existing government stock—in this case one known as "The Equivalent," which arose out of the Act of Union. The clear statement concerning the origin, the history and the ultimate extinction of this stock is based on a manuscript of Mr. H. H. Pillars. The Bank, like its older rival the Bank of Scotland, founded in 1695, began business in a humble way; still there was an air of amplitude in its early proceedings, since the first entry is an order to pay Ruddiman, the historian, £5 5s. for translating the charter into Latin. The early accounts for stationery include "standishes" (ink-stands) "killavine" pens (lead pencils) and "pownce" (the fine sand used before blotting-paper). In the first year the salary list for eight officials and servants amounted to £476 13s. 8*d*. The printing of bank notes was supervised by a committee of directors, and the obtaining of the paper from the mill where it was made was an occasion when "drink money" was voted to those charged with this duty. In fact in the early history of the Bank every occasion for modest conviviality seems to have been eagerly seized, and for a long period the Royal had its "tavern fund," which, however, did not impair "the tonic influence of high finance," to which Dr. Munro attributes the longevity of the chief officials.

Finance in the eighteenth century still had a strictly personal character, even when carried on by a Company. The early competition of the Bank of Scotland and the Royal, in the words of Mr. Munro, "had much of the fierce reprisal spirit of the old clan feud, tactics that to-day would seem dictated as much by personal animosities as by the struggle for survival, craftiness that resorted to the most infantile expedients." In those days the Bank of Scotland had the reputation of having Jacobite associations, while those of the Royal were Whig, and it is curious that Drummonds (which was absorbed by the Royal in 1924) was certainly Jacobite. The events of 1745 showed how little, outside the respective partisans, the Rebellion affected the average man of affairs. When the Pretender occupied Edinburgh the funds of the Bank were sent to the Castle, which was blockaded but not reduced. Murray of Broughton presented a considerable quantity

of notes, demanding payment. He gave a pass for certain of the Directors to proceed to the Castle to obtain specie, which was delivered after dinner at a coffee house, the recipient proceeding to Holyrood in a sedan-chair. This was far from being the only occasion on which the Bank experienced excursions and alarums. In 1819, during the so-called Radical Rising at Glasgow, the bank office there was guarded by a company of sharpshooters. Again in 1868, riots, also in Glasgow, took place outside the bank premises, and as late as 1908 the Motherwell bank was raided and that at Ganton in 1923.

Space forbids a mention of more than a few very interesting side-lights on business, social customs and points of view. It is explained that Highland depredations were usually confined to cattle, "through some illogical Gaelic sense of the personality of money." One likes the candour of a committee of Directors to whom in 1818 the existence and the nature of a mercantile bill were something of a mystery, when, in giving the result of their researches, they add: "This dissertation *may be thrown* away on the other Directors." The Royal was asked, in 1830, to call a meeting of the creditors of Sir Walter Scott in order to recognise his dauntless sense of honour, when tangible expression was given "to their very high sense of his most honourable conduct and in grateful acknowledgment of the unparalleled and most successful exertions he has made and continues to make for them." The Royal, indeed, is not only a Scottish Bank, it might almost be said to be a Scott bank, since successive Dukes of Buccleuch have been either Governors or Deputy-Governors for 130 years out of the two centuries of its history.

There is so much to admire and to be grateful for in Neil Munro's *History* that it is perhaps a little ungracious to mention a few slips. Dr. Hugh Chamberlain was not the "first projector" of the Bank of England. The rival institution he promoted is described in *Joint Stock Companies*, III, pp. 204, 246–9. Though William Paterson's descendants have been something of a thorn in the flesh to the officials of the Royal over a mythical inheritance, he should not be deprived of his due. The conditions of the note issue of the Bank of England as recorded (p. 224) are liable to mislead. There seems to be some confusion about the beginning of the provident fund of the Royal. It is described (p. 341) as having been constituted in 1820, but we are told elsewhere (p. 168) that in 1811 a pension was granted from "the fund for the behoof of decayed and superannuated officers of the Bank."

W. R. SCOTT

The Industrial Revolution in the Eighteenth Century : an Outline of the Beginnings of the Modern Factory System in England. By PAUL MANTOUX. Revised edition. Translated by MARJORIE VERNON. (London: Jonathan Cape. Pp. 539. 16*s.*)

THIS is the first book to appear in the "Bedford Series," which is designed to present to English readers standard works in economic history written by continental scholars. The choice is an excellent one. A translation of *La Révolution Industrielle* has often been asked for, as it is the only comprehensive survey of the last forty years of the eighteenth century. For some time, indeed, it has been difficult to get copies of the original French edition, which was published so long ago as 1906. It is true that M. Mantoux has had a considerable influence on the last generation of teachers and writers of text-books. Much that he wrote has been incorporated in the general treatment of the Industrial Revolution; so much so that it is difficult to realise to-day what an important contribution to the subject his book was twenty years ago. Since then we have had studies of special aspects of the movement from the Hammonds, Professors Unwin, Heaton and Daniels, Mr. Ashton, Dr. Hamilton and others. Inspired by M. Mantoux, Charles Ballot set himself to collect material for a similar history of the beginnings of industrialism in France, and left at his death the researches published as *L'Introduction du Machinisme dans L'Industrie Française* (1923). So much has been done since 1906 that M. Mantoux had to undertake a revision of his book before it could be issued in an English form. He has preserved the main structure of the work, making here and there corrections and additions called for in view of recent research. As a provisional synthesis, he tells us, he has allowed it to stand. In this he was well advised. The critical examination of the organisation of industry on the eve of the Industrial Revolution, the account of the expansion of foreign trade, the analysis of what is implied by "factory" and "machine," the contrast between the development of the textile and metal industries—all these are of permanent value as contributions to method.

The English version is on the whole a competent piece of work. It may seem ungrateful to point out that the translator nods now and then. The just balance of the English sentence is not always achieved and sometimes the meaning remains a little obscure. There are curious slips. In referring to the original capital of the Bank of England (p. 98), "*douze cent mille livres*" is twice

rendered as "*fifteen* hundred thousand pounds." On the following page there is a serious blunder. By taking the pronoun "*elle*" to refer to the Bank of England, instead of, as it does, to the East India Company, Sir Josiah Child is made Governor of the Bank which is attacked on account of his Tory politics! Such slips point to a certain unfamiliarity with the subject-matter. Other examples may be given. "The *carriage* invented by Henry Maudsley" (p. 305) is not an adequate translation of "*le support à chariot,*" *i.e.* the slide-rest. "*La Compagnie Baltique*" (p. 95) should be rendered "the Eastland Company," and not literally. David Mushet is consistently called D. Musket. These are small points, some of which a more careful reading of the final proofs would have corrected, but there is one extraordinary medley of inaccuracy and inconsistency to which special attention ought perhaps to be drawn. In the acknowledgments (p. 44) M. Mantoux is made to express his indebtedness to "Professor Foxwell, of the University of Cambridge, who threw open to us its (*sic*) library, rich in economic literature." "... *sa riche bibliothèque de littérature économique*" means, of course, Professor Foxwell's own library, not that of his University. The translator actually appends a footnote to say the books are now in the Central Library of the University of London. But this again is contradicted (p. 500), where, in place of the statement of the original French edition, that the Foxwell Collection had been acquired by the Goldsmiths Company and deposited in the London University buildings at South Kensington, it is asserted that the books are now at the London School of Economics. Many students would be glad if such a transfer could be effected. But it has not been made. It is difficult to understand how it came about that a statement of fact was omitted in favour of an inaccurate piece of information.

J. F. REES

University of Birmingham.

Matérialisme Historique et Interprétation Economique de l'Histoire. Par HENRI SÉE. (Paris: Marcel Giard. 1927. Pp. 136. 10 *fr.*)

PROFESSOR SÉE has written an interesting essay on the origins of the materialist conception of history and its value as a canon of interpretation. There is no particular novelty in his treatment of the subject. He ascribes to Marx, in collaboration with Engels, full credit for the enunciation of the theory, and he

approaches it without any presumption in favour of or against its validity. The footnotes and bibliography at the end provide an excellent guide to the general literature of the question. M. Sée is perhaps too much inclined to stress the argument that Marx put forward the theory before he had made a comprehensive study of history. This procedure he frequently describes as "unscientific." "Il prenait pour loi ce qui n'est qu'une théorie," writes M. Sée (p. 125), in attempting to rebut Engel's claim that Marx made a discovery comparable with that of Newton. But surely it is comparable in the sense that both Newton and Marx advanced hypotheses as an explanation of phenomena. The difference is that uniformity in the physical world can be much more accurately observed than in the world of social relations. The theory is admitted to be "une part notable de vérité" (p. 129), and consequently the fact that it was formulated before it was fully tested is of little significance. Nor indeed does the method differ from that followed by scientists. The real problem is to determine how far the generalisation covers the facts. On this the author has some acute things to say both with regard to the facts of history and the forecasts made by Marx. It is impossible to prove that all social disturbances in the past have been caused by purely economic factors. Political and religious differences have led to war in circumstances in which it would be difficult to contend that they were motives masking fundamental economic antagonisms. As to Marx's views on the concentration of capital in the hands of the few and the increasing intensity of economic crises, they do not seem to be confirmed by modern tendencies. The very fact that Marx promoted active propaganda goes to show that he was not content to allow forces to achieve the inevitable communism which he postulated. But this paradox, of which M. Sée makes much play, can be paralleled from the lives of Calvinists such as Cromwell and fatalists such as Napoleon, who certainly did not stand by and allow predestination or fate to work out their own ends. There is no doubt that Marx stated his theory in a too dogmatic form. The remarkable fact is that those who are unwilling to accept it do not see that the economic interpretation of history is in a sense unavoidable. The term "economic" is merely a convenient label which is applied to certain aspects of man's activities. If these activities can be isolated for purposes of discussion, and they are in themselves important, the attempt to discover their significance in history is a legitimate inquiry. Marx found them fundamental—an excellent provisional hypothesis. He saw them expressed

throughout history in class struggles. These may or may not be identified with the actual revolts and wars which have occurred in history. M. Sée is inclined to make the identification. While it must be true, on the Marxian hypothesis, that there are economic motives behind every violent outbreak, it does not follow that class struggle is not present, or even acute, when there is no outbreak at all.

J. F. REES

University of Birmingham.

Die Wirtschaftstheorie der Gegenwart. Edited by PROFESSOR H. MAYER, Vienna. A memorial to Friedrich Wieser. 4 vols. (Vienna: Julius Sprengei. Pp. 1300.)

THESE volumes were to have been presented to Wieser on his eightieth birthday, and are now issued in honour of his services to economic science. The first volume contains a general view of the position of research in industrial countries; the second deals with value, prices, production, money and credit; the third with income and distribution; and the fourth with the theory of conjuncture and crises, foreign trade, finance, and socialism. The list of writers is distinguished and representative, and their tribute to Wieser is worthy of him.

D. H. MACGREGOR

NOTES AND MEMORANDA

NOTES FROM HOLLAND

(By our Dutch Correspondent)

ALMOST simultaneously with the promulgation of the New Companies Act in England, legislation on limited liability companies in Holland was completely revised. A comparison of both new systems, attractive though it would be, would take too much space; we confine ourselves accordingly to stating the principal changes in the Dutch law. The original regulations, dating from 1838, gave general principles which were elaborated in certain cases only. The new law is more in accordance with modern legislation in other countries and gives detailed rulings:

1. *Formation of limited liability companies.*—Before starting business the company has to publish in the *Staatscourant* (the official newspaper) its deed of formation as well as a declaration of the Minister of Justice agreeing to the formation, and further to register in the books of the Chamber of Commerce of its district.

2. *Capital.*—In order to prevent watering of capital, it is prescribed that the following agreements have to be published in the deed of formation and afterwards in the explanatory statement of the balance-sheet: (*a*) agreements relative to the sale of shares charging the company with special obligations, (*b*) agreements relating to the sale of shares other than by public subscription, (*c*) agreements giving advantages to the promoters, (*d*) agreements relative to payments for shares other than in money (legal tender).

3. *Management.*—Every manager is bound to a proper discharge of his duties. It is permissible to prescribe in the deed of formation that new managers are to be chosen from a list made up by the management (so-called oligarchic clause). This rule is, however, revocable, if two-thirds of the votes representing one-half of the issued capital wish to make a change.

4. *Right of the shareholders to investigate.*—If shareholders representing at least one-fifth of the issued capital express their desire for an investigation into the management's conduct of affairs, the court can order such an investigation.

5. *Voting rights.*—Instead of the existing rule that no shareholder can have more than six votes, the new law gives in principle one vote to each share. The statutes of the company are allowed to make exceptions, but in that case the rule of a maximum of six votes per shareholder is applicable.

6. *Publication of balance-sheets.*—Within eight months after the close of the financial year a balance-sheet and a profit and loss account have to be drawn up and submitted for the approval of the general meeting of shareholders. They have to be accompanied by an explanatory statement giving the method of evaluating the assets of the company. Within eight days after approval copies of balance-sheet, profit and loss account, and explanatory statement are to be deposited in the office of the Chamber of Commerce for public inspection. The managers are responsible for damages arising from fallacious statements of the company's situation in said documents. The directors, charged with supervision of their preparation, share this responsibility.

The provision regarding the publication of balance-sheets has given rise to numerous protests; a new Bill proposes to restrict publication to companies which have a capital of more than 50,000 guilders, have issued bonds, have shares or bonds quoted on the Bourse, or are doing banking of insurance business. The Bill also proposes to enumerate the items which the balance-sheets have to include.

The responsibility for the statements in the prospectus is embodied in the Civil and Criminal Codes.

The new law comes into force on April 1, 1929.

In September 1928 a Bill was presented to revise the financial relations between the State and the communes. The principal provisions are the creation of a fund to be fed from the revenue of a new tax which is to replace the communal income tax. Payments to the communes out of this fund are to correspond with the capacity to pay of the inhabitants and the obligatory expenditure of the communes. The revenue of the real estate duty is to be transferred to the communes, which are free to tax consumption and to raise a surtax on the new tax. The State personal tax is to be abolished.

On January 4, 1929, the proportion of the total of bank-notes, deposits and other liabilities at call of the Netherlands Bank to be covered by coins and bullion, which according to the Bank law must be fixed by Royal Decree, was raised to 40 per cent.

Thus the proportion ruling before the war, after having stood at 20 per cent. from July 31, 1914, onwards, was restored. In practice during the period when the legal minimum was 20 per cent., the cover was never lower than 40 per cent., except for a few weeks at the beginning of the war. The President of the Netherlands Bank, Dr. Vissering, has declared that the restoration of the pre-war proportion has only formal significance, and that the gold policy of the Bank will not be influenced by it.

The Bill concerning the introduction of an import duty on wooden shoes has been accepted by the First Chamber. Although according to the original plan a temporary duty of 12 per cent. was to be introduced, the Tariff Act of 1924 has now been changed in such a way that the exemption for clogs, which had existed up till now, is cancelled and they will in future be subject to a duty of 8 per cent.

The Bill for the imposition of succession duties on the inheritances of Dutch nationals not residing in Holland, which was mentioned in the ECONOMIC JOURNAL for June 1928, has been rejected by the First Chamber.

G. W. J. B.

CURRENT TOPICS

THE following have been admitted to membership of the Royal Economic Society:

Arnot, L.
Arora, Prof. H. S.
Auley, A. M.
Ayyar, V. G. R.
Bainbridge, J. H.
Barr, W. A.
Bedeir, A. B.
Bennett, Prof. O.
Bhai, H. S.
Brayley, Rev. L. O. W.
Bretherton, R. F.
Brown, N. M.
Callaghan, C.
Charlton, W. D.
Cramp, C. C.
Crowe, P. A.
Desai, Y. T.
Dobbs, S. P.
Edwards, H. E.
Edwards, K. H.
Estey, Prof. J. A.
Fleming, J. S. B.
Ghosh, D.
Goodwin, F. C.
Gupta, D. N. Das
Gutmann, T. E.
Hammond, W. F.
Hardwick, H. B.
Heller, S.
Hindmarsh, Miss N.
Hoggins, R. V.
Holtrop, Dr. M. W.
Hopkins, A. K.
Houslop, L. W. G.
Hunt, Prof. B. C.
Jordan, W. M.
Kabali, P. M.
Kerry, A. S., Jnr.
Khosla, A. R.
Kilby, W. B.
King, J. H.
Knight-Rawlings, A. E.
L'Ecuyer, H. Z. K.
Leese, Prof. C.
Leland, S. E.
McDonald, Prof. J. L.

Macfie, A. L.
Mann, C. V.
Matthews, W. H.
May, Prof. G.
Menocal, J. M.
Mukherjee, Dr. H. N.
Newell, W. J.
Nicoll, L. C.
Parish, L.
Parsons, G. S.
Pearson, G. E.
Peddie, J. M.
Perkins, L. C.
Purschel, V.
Roberts, W.
Sansom, G. B., C.M.G.
Sayer, E. S.
Sood, P. S.
Subramaniam, K. N.
Thomas, B.
Tinnock, W. A.
Waldie, J.
Wang, Dr. S. S. C.
Ward-Pearson, Miss.
Warran, L. T.
Waugh, F.
Wild, J.
Wilks, N. A.
Young, A.

The following have compounded for life membership of the Society :—

Arora, Prof. H. S.
Barr, W. A.
Bhai, H. S.
Butler, A. B.
Chandekar, S. P.
Desai, Y. T.
Kabali, P. M.
Kilby, W. B.
Park, J. W.
Poulton, C. R.
Shorrock, P.
Sood, P. S.
Steel, J.

The following have been admitted to library membership :—

Bibliothek des Preussischen Statistichen Landesamts, Berlin.
Cape Parliament Library.
Comitato Regionale per la Lombardia della Confederazione dell' Industrie, Milan.
Connecticut College Library.
Federal Reserve Bank of New York.
City of Los Angeles Public Library.
Sveriges Industriforbund, Stockholm.
University Library, Amsterdam.
R. Istituto Superiore, Rome.
Cassa Nazionale per le Assicurazioni Sociali, Rome.

The Empire Marketing Board has made a grant to the London School of Economics for the establishment of a Chair of Imperial Economic Relations. The new Chair is to provide an authoritative centre for the scientific study of the many economic problems which confront those engaged in the active development of Empire trade. It is also hoped to increase the supply of trained economists qualified to undertake practical

economic research along lines calculated to be of direct benefit to the marketing of Empire products in the United Kingdom.

IN connection with Sir Robert Kindersley's Study of British Foreign Investments, printed above, it is interesting to see the Board of Trade's latest estimate of the various items of the British trade balance for the last two years. The preliminary statement, just published, is as follows:

	1928.	1927.
Invisible Exports:—		
Excess Government receipts from overseas.	£13,000,000	—
Net national shipping income . . .	130,000,000	£140,000,000
Net income from oversea investments .	285,000,000	270,000,000
Net receipts, short interest and commissions	65,000,000	63,000,000
Other net miscellaneous receipts . .	15,000,000	15,000,000
Total invisible exports	£508,000,000	£488,000,000
Deduct:—		
Excess imports of merchandise and bullion	359,000,000	392,000,000
Net total credit balance	£149,000,000	£96,000,000

It is understood that use has been made of Sir Robert Kindersley's figures in estimating the net income from overseas investments.

THE following special *Memoranda*, prepared by the London and Cambridge Economic Service, have been recently issued to all members of the Royal Economic Society:

No. 11. The Railway Industry of Great Britain, 1927. By W. V. Wood and C. E. R. Sherrington.

No. 12. A New Index-Number of Wages. By A. L. Bowley.

No. 13. Report on Current Economic Conditions. January, 1929.

RECENT PERIODICALS AND NEW BOOKS

Economica.

DECEMBER, 1928. *Some Tests of the Trustworthiness of Public Statistics.* A. L. BOWLEY. A review of select cases from most of the principal spheres of national statistics "by consideration of measurements which could be approached by two independent methods, or which ought to show certain internal relationships." *Expenses of Production in Great Britain.* F. BROWN. The calculation of Census results, so as to show the effect of percentage changes in certain expenses (wages, materials and fuel) on prices, on certain assumptions. *The Law of Combination in Scotland.* J. L. GRAY.

The Economic Record (Melbourne).

NOVEMBER, 1928. *The Problem of Australian Coal.* F. R. E. MAULDON. *The Australian and American Labour Movements.* C. GOODRICH. *Australian Loan Expenditure.* L. RAWS. *Industrial Arbitration in New Zealand.* W. H. COCKER. *Railway Maintenance Expenditure in Australia.* T. HYTTEN. *The Application of Economic Research to the Agricultural Industries.* A. E. V. RICHARDSON. *A Brief Review of Rural Credit-facilities in New Zealand.* T. D. HALL. *The Income Method of estimating the National Income.* J. A. AIRD. *The Commonwealth Conciliation and Arbitration Act,* 1928. G. ANDERSON.

The Sociological Review.

JANUARY, 1929. *Rural and Urban Thought: a Contribution to the Theory of Progress and Decay.* P. GEDDES and V. BRANFORD. *Commercial Functions of the Nuclei of the English Conurbations.* R. E. DICKINSON. A contribution to "regional" economics, with reference to the functions of the modern large city.

Indian Journal of Economics.

OCTOBER, 1928. The Report of the Royal Commission on Agriculture in India is reviewed by A. C. SEN GUPTA and B. G. BHATNAGAR. *The Indian Tinplate Industry: a Study in Comparative Advantages.* H. L. DEY. *The Amalgamation of Note Issues.* G. F. SHIRRAS.

Quarterly Journal of Economics.

NOVEMBER, 1928. *The Sherman Act: its Design and Effect.* M. W. WATKINS. Argues that the interpretation of the Sherman Act has been "liberalised," so as to give "a better balanced adjustment among the divergent interests" of producers, consumers and wage-earners. *The Provision for Agricultural Credit in the United States.* A. G. BLACK. A study of the Federal Farm Loan system; concludes that short and intermediate credit are not so adequate as long-term credit. *Water, and the Course of Empire in North Africa.* M. M. KNIGHT. *The Currency Settlement in England.* A. PLUMMER.

American Economic Review.

DECEMBER, 1928. *Explanation of the Business Cycle.* J. E. SHAFER. Holds that the explanation is to be found in the operation of credit. *Rational Economics.* H. SCHULTZ. A review of the work of Pietri-Tonelli in reference to Pareto. *Playing-card Currency of French Canada.* H. HEATON. An interesting contribution to research in the history of manufactured currency. *Observations on Custom in Price Phenomena.* J. H. SHERMAN. A critical examination of the rôle of custom in retail prices, based on the figures of E. D. Jones. *Wages and the Collective Wage Bargain.* S. S. GARRETT. Controverts the view that collective bargaining can raise the wage level, except by inflicting such losses on the community that the final share of labour will more than offset its initial nominal gain. *Government Control of Foreign Investments.* G. W. EDWARDS.

Review of Economic Statistics (Harvard).

NOVEMBER, 1928. *Income Data from Farm Business Surveys.* J. D. BLACK. *Statistical Background of the Crisis Period,* 1837–42. A. H. COLE. *The Production of Electricity as an Index of the Physical Volume of Business.* W. M. PERSONS and A. M. MATTHEWS. *Revision of the Index of General Business Conditions.* W. L. CRUM. A change is noted, in order to correct for recent speculative activity. *Review of the Third Quarter of the Year,* 1928.

Political Science Quarterly.

DECEMBER, 1928. *Reflections on Farm Relief.* R. G. TUGWELL. A discussion of the question of limitation of supplies of certain farm products as a remedy for agricultural depression; with special reference to the McNary-Haugen Bill. An article of importance in the question of "controls" of produce, and also in the whole problem of the conditions of farming.

Journal of Political Economy.

OCTOBER, 1928. *The Population Problem since the World War.* A. B. WOLFE. A review of recent literature, and an initial study of the question of land and other resources. *Rate of Increase of Monetary Gold Stock.* L. D. EDIE. Refers to the recent increase of the gold stocks of the U.S.A. *Socialistic Theories of Imperialism.* B. J. HOVDE. *Canada and Hydro-electric Power.* J. S. PRENTICE. *Effect of the 80 per cent. Credit Clause.* C. P. WHITE. On a change in the federal estate land tax in relation to inheritance.

DECEMBER, 1928. "*Capitalism*" *in Recent German Literature.* T. PARSONS. *The Population Problem since the World War.* A. B. WOLFE. *Influence of Dumping on Monopoly Price.* T. O. YNTEMA. An important analysis of the problem of domestic price when dumping is practised, in relation to the conclusions of Viner. *Industrial Disputes in the Glass Bottle Industry.* C. R. DAUGHERTY. *Organised Labour and the Trust.* L. W. COOPER.

Journal of Economic and Business History.

VOL. I. No. 1. *American Treasure and Andalusian Prices,* 1503–1660. E. J. HAMILTON. *Early English Banking Schemes.* R. D. RICHARDS. *Thomas Hancock, Colonial Merchant.* E. EDELMAN. *Recent Work on the Economic History of Ancient Rome.* T. FRANK.

Historical and Theoretical Issues in the Problem of Modern Capitalism. F. H. KNIGHT. A study of Sombart and his critics, Weber, Tawney, Brentano, Sée.

This is the first issue of this Journal, which is published for the graduate school of business administration at Harvard, under the editorship of E. F. GAY and N. S. B. GRAS.

World Trade.

JANUARY, 1929. This is the first issue of a Quarterly Review of the International Chamber of Commerce, to be published in three languages. It includes articles on—*The Most-favoured-nation Clause, Clean Bills of Lading, International Industrial Statistics, Double Taxation, The International Silk Federation,* and the problem of *Uniform Nomenclature in Customs and Railway Tariffs.* A large amount of information is supplied on the results of the work of various Committees of the Chamber.

Wheat Studies of the Food Research Institute (Stanford, California).

NOVEMBER, 1928. *Forecasting Wheat Yields from the Weather.*

DECEMBER, 1928. *The World Wheat Situation,* 1927–28. World acreage set a new record. Yield per acre, though not extraordinarily high, was above the post-war average. After May 1 good new-crop prospects, coupled with the weight of visible supplies, caused a spectacular price decline.

JANUARY, 1929. *Survey of the Wheat Situation, August to November,* 1928. This is a year of wheat surplus, roughly analogous to 1923-24. From a record acreage, high average yields were obtained. The world crop ex-Russia is about 3,750 million bushels, exceeding the best previous crops of 1915, 1923 and 1927. Low and comparatively stable prices, heavy international trade and exceptionally large stocks have characterised the situation in recent months.

Revue d'Économie Politique.

SEPTEMBER–OCTOBER, 1928. *La réforme monétaire française.* (Anon.) *La monnaie dirigée.* M. ANSIAUX. An examination of the formula of Mr. Keynes, and of the working of the Federal Reserve System. *Les problèmes de la Stabilisation dans les bilans.* P. BAYART. *La circulation de métaux et de monnaie au Pérou pendant la XVI^e siècle.* A. E. SAYOUS. *La Banque de Grèce et la stabilisation de la drachme.* E. J. TSOUDEROS.

Journal des Économistes.

NOVEMBER, 1928. *La loi des assurances sociales, et ses diverses répercussions.* R. HUBERT. *La Canada économique.* R. J. PIERRE. *Les cours des valeurs des chemins de fer en 1927.* G. DE NOUVION. *Les travaux des Chambres de Commerce français.* X. *La ligue de libre-échange.* B.L.L.E.

DECEMBER, 1928. *La tension monétaire et le danger d'une crise aux États-Unis.* B. MOURRE. *La fraude fiscale et ses formes actuelles.* C. ROSIER. *La Lettonie économique.* G. DE KOWNACKI.

JANUARY, 1929. *La population du globe et des principaux pays.* R. J. PIERRE. *Comptes courants, comptes des dépôts.* P. CAUBOUE. A study of banking practice and definition, with statistical reference.

Revue de l'Institut de Sociologie.

JULY–SEPTEMBER, 1928. *La sociologie, ses méthodes, et ses lois.* E. RIGNAND. *La système monétaire anglais.* B. L. CHLEPNER. Reviews the period 1844–1914.

Giornale degli Economisti.

NOVEMBER, 1928. *La "Finanza" di Antonio de Viti de Marco.* PROF. CABIATI writes a review article on the recently published treatise on Public Finance by Prof. de Viti. The book is described in terms of high commendation as a work of the front rank. *Il commercio estero italiano nel* 1861–1870. EPICARMO CORBINO.

DECEMBER, 1928. *La diminuzione della mortalità e la selezione dei rischi assicurativi.* MARCELLO BOLDRINI. *La congiuntura economica degli ultimi anni in Russia.* JENNY GRIZIOTTI KRETSCHMANN. Some of the inherent difficulties in the Russian economic system are well set out. The internal purchasing power of the rouble is not more than 50 per cent. of its artificially stabilised gold value, a fact which hinders the export of goods and the import of capital. The State monopoly of foreign trade, together with all kinds of restrictions imposed for political reasons, render to a large extent nugatory the policy of granting concessions to foreign companies. The concentration of the limited capital resources of the country on the heavy industries and on grandiose schemes of electrification and transportation has the effect, for the time being, of checking the growth of the lighter industries and thus lessening the supplies of manufactured goods for consumption. Inflation combined with State-regulated prices leads to an intense "hunger for goods," which industry cannot satisfy. The peasant restricts his cultivation to avoid taxes and because he cannot get an equivalent in commodities for the produce he has to sell, despite the preference given to the country districts in the distribution of manufactures. Above all, the policy of persecuting the "kulak" (defined as anyone owning more than one head of live-stock or showing any signs of affluence) is stifling enterprise in the villages and preventing the reconstitution of the herds of cattle and sheep. This in turn reacts upon industrial development, which is held up for lack of essential raw materials, such as leather and wool. The decrease in the export surplus of wheat involves the shipment of gold to finance imports, to the further detriment of the currency system. The townspeople, also, go short of food, and relations between them and the peasants are unsatisfactory. "The problem of attaining economic equilibrium lies in the possibility of restoring equilibrium between the purchasing power of the population and the supply of commodities, and on this in turn depends the political equilibrium of the U.S.S.R. in the immediate future."

La Riforma Sociale.

SEPTEMBER–OCTOBER, 1928. *Il coefficiente psicologico dell' economia politica.* PROF. ROBERTO MICHELS makes some interesting observations on the influence of psychological factors upon the economic activities of mankind. *Risparmio e assicurazioni sulla vita.* A. GEISSER. *Per una maggiore chiarezza nei documenti finanziari.* ERNESTO ROSSI. *Dei concetti di liberismo economico e di borghesia e sulle origini materialistiche della guerra.* LUIGI

EINAUDI. A critical appreciation of some recent contributions by Benedetto Croce to the historical development and significance of certain economic ideas.

NOVEMBER–DECEMBER, 1928. *In memoria di Giuseppe Prato.* C. SUPINO, A. GESSLER, G. FENOGLIO. *I cicli economici.* ATTILIO GARINO-CANINA. A brief survey of the tenets of a number of the chief writers on the causation of trade cycles. *Le assicurazioni collettive di legge e le compagnie private.* DONATO BACHI.

Annali di Economia (Milan).

OCTOBER, 1928. *Sulla costruzione di barometri economici in Italia.* RICCARDO BACHI. Italy is less suited than most other European countries for the construction of economic barometers. This is partly due to the lack of reliable statistical information in regard to many important economic phenomena, and partly to the fact that both secular and accidental forces seem to influence the course of economic change to a specially high degree. The device of extrapolation, which is used elsewhere for showing the cyclical trend, after elimination of secular and seasonal chances, would be less applicable to Italian economic conditions. It would, however, be of great value to obtain individual indices for the study of particular aspects of business movements. Prof. Bachi classifies under six heads the kinds of indices which might be constructed. *Le tariffe per la vendita dell' energia elettrica.* PROF. TAJANI gives a number of formulæ and diagrams relating to the prices to be charged for electrical power under varying conditions, which throw light on the problem of discriminating monopoly prices. *Saggio di teoria economica del credito e della banca.* GIUSEPPE ZUCCOLI. The substance of a course of lectures on banking theory and practice delivered at the University of Bocconi by the writer, who is a practical banker. *La pesca in Italia.* OSWALDO CIOCCA. A lengthy article containing much statistical material dealing with the Italian fishing industry.

Scientia.

SEPTEMBER, 1928. *Tendenze monopolistiche nell' economia contemporanea.* PROF. GRAZIANI, reviewing a number of the memoranda prepared for the World Economic Conference, notes the growing tendency towards monopolistic restrictions in both external and internal trade. No startling results are to be expected from the resolutions of the Conference, but " it is the spirit of this movement, which tends to promote a wider liberty, a greater possibility of exchange, and an increase in the intensity of international relations, that merits attention and approval."

Jahrbücher für Nationalökonomie und Statistik.

OCTOBER, 1928. *Der Zusammenbruch der Grenznutzentheorie.* DR. O. CONRAD argues the collapse of the marginal utility theory, which Schumpeter is said to admit is fictitious. But Spann's reactionary theory fails because of faulty differentiation between value and price. Cassel's theory, although not flawless, can nevertheless be preferred to either of these. *Die Entwicklung des internationalen Geld- und Kapitalmarktes und der Märkte einzelner Länder während des I. Halbjahrs* 1928. *Zur Frage der ungelernten Jugendlichen.* W. FELD. *Japan und seine Eisenbahnen.* WERNEKKE. *Das Problem der Reichsgenossenschaftsstatistik.* T. ASSHEUER.

NOVEMBER, 1928. *Die Grenznutzenlehre und die Werttheorie Othmar Spanns.* DR. WYLER discusses Spann's attempt to dispose of the marginal utility theory. In this the detailed references to Gossen's law are examined and found to be more accurate than Spann assumes. Spann also errs in respect of the distinction between primary value and deduced secondary value, and also between objective and subjective value. *Die Grenzung der Geldschöpfung.* W. HEINRICH. *Meistbegünstigung.* POSSE. *Zur Binnenschiffahrt der Nachkriegszeit.* R. HENNIG. *Löhne und Arbeitszeit im europäischen Kohlenbergbau.* H. FEHLINGER. *Die britische Kommunalverwaltung und die geplante Reform der Kommunalfinanzen.* F. HEYER. This is a descriptive discussion of the Government's derating proposals. Their main effects will be to add to the State's burden, and to produce excessive centralisation. On the whole, however, the scheme is soundly conceived. *Wahlbeteiligung und Stimmabgabe der Frauen.* H. ZURKUHLEN.

Archiv für Sozialwissenschaft und Sozialpolitik.

OCTOBER, 1928. *Deutschlands internationaler Handel und das Reparationsproblem.* PROF. TAUSSIG writes an excellent article analysing the effects of reparations on foreign trading with particular reference to the effects on the price level. Suggestions for policy are inherent in the analysis. *Die Quasirente in Marshalls Lehrgebäude.* DR. REDVERS OPIE gives a critical appraisal of Marshall's handling of this doctrine, of which the gist is that Marshall did not adequately work out its connection with kindred concepts. *Ueber Bürokratie und Parteimaschine in den Vereinigten Staaten.* C. LÜTKENS. *Oppenheimer's Theorie der "Reinen und Politischen Oekonomie."* PROF. AMONN examines Oppenheimer's theory of monopoly and distribution. He arraigns it as almost entirely defective. *Wirtschaftstheorie im Dienste der Wirtschaftspolitik.* R. STRIGL. *Böhm-Bawerk und Marx.* O. ENGLÄNDER.

Schmollers Jahrbuch.

OCTOBER, 1928. *Professor Cassels Nationalokonomisches System.* This is a reprint of an article by PROF. K. WICKSELL which first appeared in *Economisk Tidskrift* for 1919. It consists of a detailed examination of Cassel's doctrines, most of which are rejected. In particular the price theory is superfluous. Cassel's attacks on Böhm-Bawerk, Menger and Jevons are unjustified. The best work is that dealing with conjunctures. *Zur Frage einer Gestaltenkunde (Morphologie) der Wirtschaft.* H. WAGENFÜHR. *Über die Ausgangspunkte der Volkswirtschaftspolitik.* T. SURANYI-UNGER. *Die ökonomische Grundlage der panamerikanischen Idee.* J. JEFFEN. *F. Oppenheimer und die Theorie des Ertrages.* DR. WEDDIGEN writes a detailed criticism of Oppenheimer's theory of returns and attempts to reconcile it with his own ideas. *Nuere Lehrbücher des Genossenschaftswesens.* W. BLEUGELS. *Nueres verwaltungsrechtliches Schriftum.* O. BAHMANN.

Archiv für Sozialwissenschaft und Sozialpolitik.

DECEMBER, 1928. *Die Fragestellung nach der Wirklichkeit im historischen Materialismus.* P. EPPSTEIN. *Der Bundschuh. Eine*

Studie zur Vorgeschichte des deutschen Bauernkrieges. W. ANDREAS. *Die Wirtschaft als Kreislauf.* W. LEONTIEFF. *Das Abrüstungsproblem in der sozialistischen Arbeiter-Internationale.* J. DEUTSCH.

Zeitschrift für die gesamte Staatswissenschaft.

85 Band, 3 Heft. *Vilfredo Pareto.* O. WEINBERGER. *Unternehmertum und unternehmergeschichte.* N. S. B. GRAS.

86 Band, 1 Heft. *Adam Müller.* J. BAXER. A memoir in view of the centenary of Müller's death. *Soziologische und geschichtliche Staatsauffassung.* O. HINTZE. An historical critique of the Sociology of F. Oppenheimer. *Zur Ausbildungsfrage der höheren Verwaltungsbeamten.* W. NORDEN. *Gegenwartsprobleme der Finanzwissenschaft.* E. H. VOGEL. On sociological terminology. *Neue deutsche Konjunkturliteratur.* R. STUCKEN. On Mises, Wagemann, and the views of the *Verein für Sozialpolitik. Währungsreform in Indien.* L. STEPHINGER. On Leroi's *La politique monétaire anglaise dans l'Inde.*

Weltwirtschaftliches Archiv.

JANUARY, 1929. *Aussichten des Kapitalismus.* C. ECKERT. *Die Stabilisierung der Kaufkraft des Dollars.* A. MAHR. *Zollpolitik und Produktionsmittelversorgung.* G. MACKENROTH. *Die Südwanderung der amerikanischen Baumwollindustrie.* A. PREDÖHL. *Der Ausgleichsgedanke als Organisations-prinzip des Tauschverkehrs.* R. LIEFMANN. *Zur Methode einer internationalen Getreidevorratstatistik.* U. RICCI.

Vierteljahrshefte zur Konjunkturforschung.

Sonderheft 11. *Die Saisonschwankungen der wichtigsten wirtschaftsvorgänge in Deutschland seit 1924.* O. DONNER.

2 Jahrgang. *Ergänzungsheft 4. Die Konjunkturforschung im Bericht des britischen Enquete-Ausschusses.*

De Economist.

OCTOBER, 1928. *Is de wet der verminderende meeropbrengsten een grondslag voor de volkshuishouding?* R. VAN GENECHTEN. An inaugural lecture containing a detailed analysis of the history and of the validity of the Law of Diminishing Returns. In considering in what sense it is universally true, the writer criticises as a "play of words" Clark's attempt to relate it to the Law of Diminishing Utility under a general "law of economic variations." In the case of Turgot, who first ennuciated the law, his natural expectation of proportionate returns was connected with his physiocratic views. The rudimentary explanation of Diminishing Returns given by the Physiocrats was that there was a definite quantity of fertility in the soil which could be brought to activity. In West, Ricardo and Malthus the law is regarded as due to a diminished yield to labour and capital. There is a corresponding divergence of view as to the effect of improvements, Turgot holding that the law was valid irrespective of improvements, the classical school believing that improvements counteracted the law. The effects of the agricultural discoveries of Liebig are traced; he

effected a reconciliation of the standpoint of Ricardo and Turgot as to the manner in which land and labour co-operate, but his influence on the agricultural side was to show that if the "minimum factor" in the soil was rationally increased, the increase of returns would be proportional to the increase of the "minimum factor." The reaction of this view on the economic side is seen in Koenen and Esslen. The researches of Mitscherlich have given an agricultural foundation for the Law of Diminishing Returns by showing *in what measure* the agricultural produce is dependent on the "minimum factor." Subsequent sections are devoted to a careful consideration of the application of the law to industry (where the effect is less, because production in industry is less confined, and it is thus more easily possible to effect new combinations); to labour (questions of fatigue and reaction of good wages on output), and to the use made of capital. *De opkomst van de platte-landsnijverheid in Nederland in de 17e en 18e eeuw.* Z. W. SNELLER. An historical sketch of the development of the wool, linen and cotton industry in the seventeenth and eighteenth centuries in Overijsel and North Brabant, with special reference to the towns of Almelo and Enschede in the former province and Tilburg, Eindhoven and Helmond in the latter.

NOVEMBER, 1928. *Institutionalisme.* F. DE VRIES. A study of recent tendencies in American economic literature, primarily as illustrated by Veblen and W. C. Mitchell, and as summarised in Mitchell's dictum that "the behaviouristic view-point will make economic theory more and more a study of economic institutions." The essential features of the doctrine of these writers are summarised in so far as it is critical of orthodox theory, and the writer goes on to discuss the nature of economic theory and its relation to fact; it is "an indispensable aid in the explanation of what actually takes place." Ricardo, as an example, always begins with questions of the day. The conclusion is that "a doctrine of economic institutions can never take the place of economic theory," and that investigation of fact without the guiding thread of theory is unfruitful. The idea of economics as laying stress upon welfare rather than wealth (Mitchell) and the relation of psychology to economics are also considered. *De roulering in het werklozenleger.* J. TINBERGEN. A discussion of the question of "circulation" among the unemployed. Statistics of unemployment give no information as to the duration of unemployment among the unemployed, or of the frequency of changes in the body of the unemployed. The statistical problem is approached and discussed mathematically.

DECEMBER, 1928. *Expansie en kapitaalbehoefte.* B. H. DE JONGH. When fixed and circulating capital are brought together in a special way, their power of production may be increased without the investment of further capital being necessary to bring this about. The article resolves itself into a mathematical discussion of a problem in replacement of capital. A fleet of ten vessels (each of 1,000 tons) is built at a cost of 125 fl. a ton; the vessels are scrapped at the end of twenty years. The capital value of the fleet may then range from 1¼ million fl. (when new) down to nothing immediately before being scrapped (assuming, for convenience, that the value of the scrapped iron is nil). Assuming that there is a depreciation fund attached to each vessel to allow its replace-

ment after twenty years, and that out of this fund vessels are added as soon as the amount in the depreciation fund equals the cost of a vessel, new ships will be added after 20/10, 21/11, 20/12, 20/13 years. The problem discussed is the configuration and capacity of the fleet in successive periods of twenty years. *Een economische geschiedenis van Nederland.* Z. W. SNELLER. Miscellaneous observations on certain aspects of Dutch economic history, occasioned by, and partly in criticism of, a recent German publication, Baasch's *Holländische wirthschaftsgeschichte. Enkele opmerkingen over de waarde van cijfers naar den eisch der statistische methode.* R. CLAEYS. An article in criticism of the statistical material and methods used by Mr. Van der Poel in his contributions to the July–August and September numbers, particularly in his comparison of the amount paid by representatives of different income groups in direct and indirect taxes. Mr. Van der Poel replies in a lengthy note.

Review of Polish Law and Economics.

Vol. I. No. 1. *The Organisation of the Export Trade in Agricultural Produce in Poland.* C. S. DEWEY. *Double Taxation of Income in Poland.* R. LANGROD. *Die Golddevisenwährung.* K. W. KUMANIECKI.

Vol. I. No. 2. *The Polish Laws on Unfair Competition, and on Limited Liability.* J. NAMITKIEWICZ. *Labour Jurisdiction in Poland.* G. SIMON.

International Labour Review.

OCTOBER–NOVEMBER, 1928. *Employers' Organisation in Italy.* G. OLIVETTI. *Financing of House-building in Countries with Rent-restriction Legislation.* K. PRIBRAM. *The Agricultural Workers' Federation of Palestine.* W. PREUSS. *The Progress of Organisation among Intellectual Workers. The Finding of Employment for Artistes.*

DECEMBER, 1928. *Economic Questions and the International Labour Organisation.* G. CURCIN. *The Ratification of International Labour Conventions.* R. TELTSIK. *Some Problems of Statistics of Accidents.* J. W. NIXON. *Agricultural Wages and Labour Conditions in the Netherlands.*

NEW BOOKS

British.

ANSTEY (V.). The Trade of the Indian Ocean. Longmans. 8″. Pp. 251. 8*s.* 6*d.*

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ORGANISED MARKETING IN THE COAL INDUSTRY

The year 1928 witnessed the first serious attempt to substitute co-operative control for unrestricted competition in the coal-mining industry of Great Britain. In South Wales a simple price agreement was established which met with the usual fate of such agreements operating under similar trade conditions. In Scotland an attempt was made to reduce output by the payment of a subsidy to those owners who closed their pits or reduced output below the level of the previous year. The Scottish scheme proved unsatisfactory for the simple reason that the output of the remainder of the Scottish industry, being uncontrolled, was quickly adjusted to the new conditions. The most important of all the schemes is that of the Central Collieries Commercial Association, an organisation formed through the co-operation of eight (now nine) district associations in the Midland Counties of England. This scheme, which is commonly known as the Five Counties Scheme (but covers the coal mines of nine counties), combines restriction of output with the payment of a subsidy upon exports. It undoubtedly represents the most important attempt since the days of the Newcastle Vend to organise the industry upon the co-operative principle. It has only been partially successful, and its ultimate fate is still uncertain, but it has met with sufficient success not only to influence the probable line of development in other parts of the country but also to justify an extension of control. It is now proposed to control prices as well as output and to introduce a complex method of dealing with unused quotas. In the present article I shall endeavour to give a short account of the Five Counties Scheme together with the further proposals now under consideration, but I shall make no further reference to the Welsh and Scottish schemes. Before proceeding with this task it is desirable to draw attention to the conditions under which the scheme was introduced.

There are many classes of coal, and each supplies its own market. Since the various classes are partial substitutes the demand for each is moderately elastic, and its price moves in sympathy with the prices of other classes. I understand that the coal obtained in the area lying between Leeds and Sheffield is more suitable for gas production than that which is obtained farther east, where the mines produce largely for export, but a fall in the relative price of the latter in recent years has resulted in an increase in demand, at the expense of the former, from gas-producing undertakings. Again, the demand from a particular geographical area for any class of British coal may be highly elastic on account of the competition of supplies from a rival coal industry or section of the industry. Thus, for example, a comparatively small change in the relative prices of British and German coal may cause a substantial change in the demand for British coal from the area surrounding the port of Hamburg. If, however, we regard coal as a single product the demand under normal conditions is highly inelastic. The household demand for coal depends upon the weather, and is only slightly affected by variations in price. The demand for coal used in iron and steel production depends upon the demand for iron and steel, which is itself inelastic. Under normal conditions the supply of coal is also inelastic; the output from any given mine may vary between wide limits, but the variation is determined by changes in technical conditions to a far greater extent than by minor variations in price. Given an inelastic demand and an inelastic supply, it follows that a minor change in demand or supply produces a disproportionate effect upon price. A comparatively slight fall in demand, for example, produces a substantial reduction in the pit-head price of coal. It was this characteristic of coal that made the mining industry highly speculative before the outbreak of war. The pit-head price quickly reflected the relations of demand to supply, but the lack of competition on the distributive side of the coal industry prevented the consumer from enjoying a proportionate benefit.

Between 1913 and 1927 the producing capacity of the British coal-mining industry increased by more than 10 per cent., while the demand for coal fell from approximately 292,000,000 tons to 256,000,000 tons, that is to say, by more than 10 per cent. The outstanding fact with which the industry was faced at the beginning of last year was that the producing capacity exceeded the total demand by at least 20 per cent. The British demand in 1927 was 7·3 million tons lower than in 1913, but if the demand

of the steel industry be excluded, the demand for remaining purposes was 4·6 million tons above that of the last year of peace. The depression in the coal industry was thus partly due to the depression in the iron and steel industries. But the major cause of the depression of 1927 was to be found in the fall in exports. Of the total pre-war production approximately one-third was shipped abroad, but in 1927 the amount fell short of that exported in 1913 by over 28,000,000 tons. This was not due to a fall in foreign consumption; during the period under consideration world output (excluding that of Great Britain) increased by 124,000,000 tons, of which the continent of Europe (excluding Great Britain) was responsible for 58,000,000 tons. Thus the depression in the British coal industry was mainly due to the growth of foreign competition, and the inevitable fall in the price of coal exported to foreign countries reacted upon the pit-head price of coal consumed within this country. The twofold problem which faced the coal-mining industry was to stimulate the export trade and establish a more favourable level of prices for coal consumed in the domestic market.

It is well known that the chief exporting areas are South Wales, the North-East Coast and Scotland. The Central Collieries Commercial Association covers what is known as the Midland area, including Lancashire, Yorkshire, Notts and Derbyshire; its membership covers about 90 per cent. of the undertakings of that area and an output of approximately 100,000,000 tons per annum, that is, considerably more than one-third of the total production of the country. But the percentage of the total production of the area which is exported is comparatively small; it varies from about 3 to 8 per cent., as compared with over 50 per cent. for the South Wales coalfield. The problem of the association was therefore far less difficult than that which faced the coal-owners of other parts of the country, where the trade was frequently known as a " fifty-fifty " trade.

It has already been stated that the Five Counties Scheme consists of two parts, namely, the regulation of output and the payment of subsidies upon exports. For the purpose of the first part of the scheme two committees were appointed, a basic tonnage committee and a quota committee. The chief function of the former was to fix annual and monthly basic tonnages for each colliery owner in respect of the year ending 31st December, 1928, and thereafter to review and, if necessary, adjust such basic tonnages. The sum of the individual basic tonnages represented the total basic tonnage for the area. The function of the

quota committee was to estimate the probable requirements of the market and to fix, in respect of each month, the fraction or quota (known as quota tonnage) to be produced by each colliery owner, the fraction or percentage quota being the same for all the members. It was provided that if any coal-owner produced less than his quota, the difference or "unraised shortage" might be carried forward and added, in subsequent months (but not beyond 31st December), to the quotas for such months. Moreover, two or more coal-owners were permitted to pool their quota tonnages, which, provided the total quota tonnage for the group was not exceeded, might be redistributed by mutual agreement. It will presently be shown that this clause gave rise to the purchase and sale of unraised shortages. Finally, a penalty was imposed upon coal-owners who produced an amount greater than the permitted monthly output (plus 1 per cent.), the maximum penalty being 3*s.* per ton upon the excess, while such excess was carried forward and deducted from subsequent quota tonnages.

At this stage attention should be drawn to the method adopted in fixing the annual and monthly basic tonnages of each coal-owner during the experimental period. The crucial sentence in this part of the agreement is as follows: "The monthly basic tonnage of each colliery of each coal-owner shall be the amount of coal which was raised (pit-head weights) at that colliery in each of the corresponding months of any one of the fifteen years ended 31st December, 1927, the year to be selected by each coal-owner for each colliery." The area covered by the scheme includes some of the oldest as well as the newest coal-fields of Great Britain; it includes a considerable number of old mines with rapidly diminishing outputs as well as new and expanding mines, such as those of South Yorkshire and Notts. One of the serious practical difficulties confronting the association was to construct a scheme which would prove attractive to the owners of a great variety of collieries whose interests were by no means identical. The clause that has been quoted offered terms which clearly favoured the owners of decaying mines and indicates the price offered for their support by the owners of newer collieries with expanding outputs. Permission to select the best of the fifteen years, 1913 to 1927 (inclusive), for the purpose of fixing monthly basic tonnages, meant that the owners of old mines selected one of the earlier years, while the owners of expanding mines selected either 1927 or some other recent year. The consequence was that the total basic tonnage for the area was

considerably in excess of the effective producing capacity during 1928; full production for that year was represented by less than 100 per cent. of the basic tonnage. Nevertheless, a quota which, for the area as a whole, might appear to represent an output equal to full capacity, actually represented a smaller output; a given uniform quota represented an actual curtailment quota which varied within wide limits between individual collieries.

A simple hypothetical case may serve to make the point clear. Let us suppose that an area consists of two collieries, A. and B., and that the output of A. increased between 1913 and 1927 from 20 to 50 units, while that of B. fell from 50 to 30 units. For the purpose of fixing basic tonnage the owner of A. would naturally choose the last year and the owner of B. the first year of the period, that is to say, each would be given a basic tonnage of 50, so that the total basic tonnage would be 100 units. But the effective capacity in 1927 was 80 units. If, however, the state of trade permitted full output, and for that reason the Association fixed a basic tonnage of 80 per cent. the owner of A. would only be allowed to produce 40 units, while the owner of B. would be allowed to produce the same amount. The former would thus be faced with a curtailment of 20 per cent. which, if produced, he would actually be able to dispose of, while the latter would be unable to make use of his full quota: he would possess a surplus of "permitted production" which he would not be able to utilise. Under those circumstances the community would suffer from a shortage unless A. purchased B.'s right to the "unraised shortage."

This hypothetical case shows broadly what happened until the end of last year. When a quota of, say, 65 per cent. was fixed, such quota did not represent a total curtailment by 35 per cent. of the output of the area; it meant in practice that some of the newer mines suffered a serious reduction of output (and of output which the individual owners could have sold to their customers), while some of the older mines with rapidly diminishing outputs were permitted to produce even more than they had actually been producing before the scheme came into operation, and more than they would have been able to dispose of in their own individual markets. While the owners of some mines were taking on additional workers, the owners of others were compelled either to work short time or to dismiss a number of workers employed in the previous year. The incidence of the depression was seriously disturbed during the first few weeks of the operation of the scheme. The difficulty was partly

solved through the purchase of "unraised shortages" by the owners of those mines which were injured by the quota system from those owners of older mines whose quotas were in excess of requirements. In the hypothetical case already given the owner of A., to whom the quota meant a serious curtailment of output, purchased the right to produce that part of the quota of B. which the owner of the latter could not use. This difficulty was not unforeseen, but it was regarded as one of the costs necessary to secure the co-operation of coal-owners who might otherwise have refused to join the Association and become party to the agreement. As time went on, however, and some of those owners of modern and developing mines realised the extent to which they were suffering under the scheme, it became evident that a change in the method of fixing basic tonnage was urgently needed. When, at the beginning of this year, the clause already quoted ceased to be operative, a new method was established which brought the basic tonnage of the individual coal-owner into much closer relation to the actual producing capacity of the mines at the present time.

It was recognised, however, that this change would not in itself completely solve the difficulty. In the first place, the existence of "unraised shortage" might be due to failure to secure a market at a reasonable price. During the depression in the industry individual coal-owners have pursued different price policies, the differences being due to factors with which we are not here concerned. But the possibility of selling unraised shortages became an additional factor and apparently tended, on the whole, to strengthen the bargaining power of the individual coal-owner, who, rather than sell the whole of his output at a lower price, might now prefer to sell a smaller output at a higher price and take the risk of being able to sell the unraised shortage to other coal-owners. In the second place, the uncertain character of seasonal fluctuations in any given year makes it almost inevitable that the quota system should produce, from month to month, precisely those types of disturbances which appeared on a large scale during 1928, when the annual basic tonnage was so completely divorced from the producing capacity of that year. The monthly basic tonnages vary from month to month according to seasonal changes, if any, in the trade of the individual coal-owner; but these variations are based upon the experience of the past and may not be repeated in any given year. Thus, for example, in the hypothetical case already discussed, even if the *annual* basic tonnages of A. and B. were equitably fixed, the

monthly variations in requirements in any given year might be totally different from the monthly variations in the basic tonnages. Let us assume the annual basic tonnage of A. to be 120 units and that of B. to be 84 units. A. supplies locomotive coal and B. supplies household coal. In the former case let us assume an unvarying monthly basic tonnage of 10 units, and in the latter case a varying monthly basic tonnage which, in July, is, say, 6 units, so that the total basic tonnage for July is 16 units. Let us further assume that in a given year the summer proves to be so dry and warm that the demand for household coal is estimated at, say, 2 units, and that, therefore, the total demand is 12 units. Under these circumstances a quota of 75 per cent. would be fixed and A. would require to reduce his output to $7\frac{1}{2}$ units, thereby producing a scarcity of locomotive coal. B., on the other hand, would be permitted to produce $4\frac{1}{2}$ units for a market requiring 2 units, and would therefore have an unraised shortage of $2\frac{1}{2}$ units. The latter could either carry forward such unraised shortage or, alternatively, sell it to A., who needs the power to exceed the quota. For these reasons it will be obvious that even when a less unsatisfactory method of fixing basic tonnage was established, there remained the need of additional quota on the part of some colliery owners and the existence of unraised shortages which other colliery owners did not require at the moment and could either carry forward to future months or, alternatively, sell to those who were prepared to buy.

These were the main practical difficulties encountered in 1928, and we have seen that they were only partly solved when, at the beginning of the present year, a new method of fixing basic tonnage came into operation. The immediate object of the scheme was to raise prices to a more reasonable level. Any scheme which is intended to achieve such an object almost inevitably creates prejudice in the minds of those likely to be affected, but the general level of pit-head prices during the last few years has been so low relatively to the prices of other commodities produced and consumed in this country that most economists would probably agree that, if it could be attained without serious injury to other industries, a rise in the relative price was justified. The demand for coal has been so inelastic, the differential cost of production (which is the true determinant of prices over a short period) is so much below prime cost, the difficulty of abandoning a mine or of closing it down for a short period is so serious, that competition tends to exceed the limits of desirability and to bring prices down to a level which bears

no arithmetical relation to the actual reduction in demand. The scheme, however, did not result in a rise in the average price of coal sold by members of the Association; on the contrary, the average price continued to fall. It is probable that the fall was checked by the measures adopted by the Association, but the price position remained so unsatisfactory that the scheme of 1928 was regarded even by its strongest advocates as only partially successful, and an amendment was accepted as desirable.

The failure of the quota system to reverse the trend of prices was due partly to the competition of other areas, but mainly to the policy of the Association. The Association might have reduced output to such an extent as to create a real shortage in that part of the home market in which it enjoyed a partial monopoly, but such a policy would have created a strong feeling of resentment and endangered the existence of the Association. The requirements of the market (which are a function of price) were therefore interpreted liberally and adequate supplies were forthcoming. At certain points and periods a shortage actually existed, but, taking the market as a whole, it cannot be said that the scheme resulted in a real shortage. The provision of adequate supplies on a market governed by the psychological conditions then prevailing made it practically impossible to secure a substantial improvement in prices. Further, the provision in the scheme which enabled coal-owners to carry forward unraised shortages tended to reduce the effectiveness of monthly variations in the quota system. Those coal-owners whose quotas in any given month exceeded their requirements frequently carried their unraised shortages forward to those months in which they were able to dispose of an output greater than that permitted by the quota. The existence of unused quotas produced the same effect as the existence of disposable stocks, and therefore tended to reduce the price below that which the quota in any given month would itself have secured.

Proposals are now under consideration for extending the scheme and combating the difficulties which have been encountered in the first part of the attempt to improve the financial position of the industry. Before these are described it is necessary to give a short account of the second part of the scheme, namely the payment of a subsidy upon exports.[1] A levy of 3*d*. per ton was imposed upon the total production under the control of the Association, and the fund thereby secured was augmented from

[1] In passing it should be noted that production for export as well as production for home consumption was controlled by the quota system.

the proceeds of fines imposed upon excess production. From this fund a subsidy was paid upon the exports of coal produced within the area. The payment of a subsidy necessitated co-operation with the coal exporters in order that the latter might not intercept the subsidy by continuing to sell in foreign markets at the old price. The scheme was placed under the control of the "export committee" of the Association, and the export committee, the basic tonnage committee and the quota committee constitute the three main committees through which the Five Counties Scheme has been operated. The following administrative machinery has been established for the Humber ports; it is also the model upon which subsequent arrangements were made for the Mersey and other ports of export. In the first place a shipping bureau known as the Humber Coal Export Bureau has been formed, consisting of those members of the Association who are interested in the export trade. The function of the bureau is to look after the interests of exporting collieries, to establish, as far as possible, uniform conditions of sale, collect statistics relating to the export trade and do all that seems desirable to stimulate the growth of such trade. The bureau works through a committee consisting of members of the export committee appointed by the Association and served by a full-time official. The bureau and its committee may, indeed, be regarded as a selling syndicate in embryo. Further, a "port committee" has been established in each port consisting of representatives of all the individual coal-owners interested in the trade of that port. On the other side stands the Humber Coal Exporters' Association, which represents the exporters, some of whom control import houses in other countries and may buy coal not only from the Midland area but also from other parts of the country or from the Continent. Under an agreement between the Shipping Bureau and the Coal Exporters' Association the members of the latter have ceased to be dealers in coal (that is, people who buy and re-sell coal at their own risk) and accepted a percentage commission upon the sale of coal at agreed prices. They have thus virtually become brokers, while the agreement secures that the subsidy shall reach those for whom it is intended.

This part of the scheme appears to have been reasonably successful. The shipping of coal for export and for foreign bunkers is a highly fluctuating business, and from time to time, when a large number of ships appeared for supplies, it proved impossible to supply all that they required. On more than one occasion ships had to leave the Humber ports for Newcastle and

other places in order to secure the necessary coal, and it became necessary for the Association to sanction the production of a special additional quota for export purposes. The relation of exports to the quota system naturally became a subject of discussion in the area. There were three alternative methods that might be adopted. The first was to exclude exports from the quota system and to allow export collieries not only to produce their quotas for the home market, but also to produce without restriction for sale abroad. The second method was the one already employed, namely, that of including export demand as part of the total demand and applying the quota system irrespective of the destination of the coal produced. The third method was a combination of the two, namely, to include the export demand in the general demand, to grant a subsidy upon coal exported within the limits of the quota, and to permit colliery owners to produce without restriction beyond the limits of the quota provided that the excess was exported without the aid of a subsidy. The third method was the one recently employed by the Ruhr Syndicate, and I am not aware that it has been abandoned. It was introduced as a compromise after a protracted struggle between those colliery owners who produced coal for the syndicate and those firms which had already built up a considerable trade in contested areas before the reconstruction of the syndicate. The method first adopted by the English Association has not been altered nor (so far as I am aware) is there any proposal now under consideration which has a direct bearing upon that method. Shortages are met by emergency measures. The export trade of the area is comparatively small; in 1913 the exports reached approximately 9,000,000 tons, while in 1927 they fell as low as 2,500,000 tons excluding foreign bunkers. For this reason the problem is not one of the first order of magnitude. Moreover, for the same reason, a small levy of 3*d*. per ton has enabled the Association to pay a flat-rate subsidy of 4*s*. per ton. Whether the subsidy has been effective in improving the export position of the British coal industry is a question which cannot easily be answered. It has been urged that some of the additional trade of the Midland area has been obtained at the expense of other exporting areas, particularly the North-East Coast, and that the net addition (if any) to the total value of the export trade due to the recapture of part of the market of Northern Europe is probably very small. The foreign demand, it is said, has not proved sufficiently elastic to compensate for the fall in price which the subsidy made possible. These, how-

ever, are questions that can only be decided by closer statistical investigation than has yet been possible.

The proposals now under consideration for extending the Five Counties Scheme are designed to overcome the difficulties revealed by the original scheme as amended by the change in the method of fixing basic tonnage. The first difficulty was that created by the existence of unraised shortages and the practice which arose of buying and selling such shortages. The second difficulty was that of securing a reasonable level of prices through a simple restriction of output. It is now proposed to meet the first difficulty by establishing a system of pooling "unraised shortages" and the second difficulty by establishing a system of price control. These proposals call for separate consideration. It may be worth while repeating, at this stage, that the method of fixing basic tonnages during the year 1928, though regarded as desirable for the purpose of strengthening the Association, was otherwise so defective that the actual curtailment represented by a given quota varied between wide limits. The quota for some mines was even greater than the effective capacity, while other mines had to reduce their output considerably below the output of the previous year; some colliery owners were allowed to produce far more than they could sell, while others were able to sell far more than they were allowed to produce and, for the time being, were distinctly worse off than they would have been if the scheme had not been in operation. It was mainly for this reason that unraised shortages were bought and sold on a large scale. If we compared different districts we should find that some districts sold more than they bought, while others bought more than they sold, but since every district contains a variety of mines, the district turnover does not give a true indication of the volume of trade in unraised shortages. At the beginning of the present year a new method of fixing basic tonnages came into operation which was intended to meet this difficulty. But, for reasons already indicated, it was realised that the need for transferring unused quotas, though less than before, would remain.

The proposal which is designed to meet this further difficulty provides for the pooling of unused quotas. Two or more coal-owners will still be permitted to enter into a pooling arrangement and to redistribute quotas among themselves, but they will not be permitted to buy or sell unused quotas upon the "market." If the proposal is adopted, every coal-owner will be empowered to sell unused quota (or "unraised shortage") to a pool controlled by the quota committee, while every coal-owner needing

additional quota will be required to purchase what he wants from the pool. Under the present scheme a coal-owner is able to carry forward the unused quota of any month and to add it to his quota in subsequent months within the same year, so that in practice he is able to distribute his annual basic tonnage over the year in proportions which he finds most suitable. This power is now to be withdrawn; in future a coal-owner will only be able to carry forward, as "free shortage," $2\frac{1}{2}$ per cent. of his quota, and will only be able to carry it forward to the next month. The free shortage in any month will therefore never exceed $2\frac{1}{2}$ per cent. of the quota of the previous month. The remainder of the unused quota may be sold without reserve to the pool and placed in the unreserved section of the pool, which will be the absolute property of the Association. Alternatively, part or the whole of the unused quota may be placed in the reserved section of the pool, and while it is there the coal-owner will retain a lien upon it, and in return for the reservation he is paid a lower price if and when the reserved quota is transferred to the unreserved section of the pool. Thus for every ton placed in the unreserved section the owner may be paid, say, two shillings and for every ton transferred from the reserved section to the unreserved section he will be paid, say, one shilling. If the owner desires to recall the reserved quota he may do so; if he does not do so and it is transferred within the year to the unreserved section he is then paid the lower price. The inducement to place unused quota in the unreserved section is evidently expected to be very strong; so long as it remains in the reserved quota, and therefore within call, it is likely to produce the same effect as the present practice of carrying forward unraised quotas. It should further be added that coal-owners desiring to increase their production will be required to purchase the additional quota from the pool at a price, say, of 2*s.* 6*d.* per ton. It will be obvious that if the demand for coal remained consistently below the estimate upon which the quota was based there would be an accumulation of unused quotas or unraised shortages in the hands of the quota committee, and that this might cause a severe drain upon the funds of the Association.

At first sight the pooling arrangement appears to introduce no new principle, but merely to facilitate the transfer of unraised shortages from those who cannot use them to those by whom they are needed in order that they may be able to satisfy the needs of their customers. But such is not the case. Under the present system a colliery owner is allowed to sell part or the

whole of his right to produce, that is, his unraised shortage, but there is no guarantee that he will be able to do so. He takes the risk of the market; just as he has to find a customer for the coal that he produces so, too, he has to find a buyer for the right to produce coal which he does not wish to exercise. Under the scheme which is now proposed he will have a guaranteed market and a guaranteed price for his unraised shortage, the price under consideration being 2*s*. per ton, which is presumed to be the average overhead cost incurred in producing coal. Thus a new principle is introduced which is of the first importance in determining the probable policy of a coal-owner in any given circumstances.

The second proposal is to control prices.[1] Under this proposal three committees are to be formed, namely, a basic price committee, a sales committee, and a price pool committee. The first will fix basic prices for the various classes of coal supplied by a coal-owner, and the average of the basic prices will constitute the basic average price for any given mine. The sales committee will fix a minimum price (the "authorised sale price") at which the individual member will be allowed to sell his coal and will prepare and formulate standard conditions of sale. It will work through sub-committees, of which the existing export committee will become the sub-committee for the purpose of dealing with the export trade. In addition to these two committees a price pool committee will be formed to control the price pool which is described below. The basic average price fixed for any mine will be the average of the prices actually paid for the various classes of coal supplied from that mine during a period preceding the institution of the scheme, that is to say, it will be based upon actual experience. The authorised sale price will be determined upon the principle of charging what the market will bear. In each case it will be an individual price. The basic average price will vary from mine to mine, and the authorised sale price will vary from one colliery firm to another. If the authorised sale price is above the basic price, the difference will be surrendered to a price pool; if the basic price is above the authorised price, the seller will receive the difference as compensation from the pool. Thus the basic average price is the price which the colliery firm *retains* for the coal that it sells: the authorised sale price is the price which the buyer of coal

[1] The first proposal, if adopted, will become an integral part of the Five Counties Scheme, but the second will be a separate and voluntary scheme which under the present constitution cannot be enforced upon all the members.

will be required to pay. The surplus, if any, remaining in the price pool will be distributed among the members in proportions determined by the amount of coal sold.

In some respects the proposed arrangement resembles that of the German syndicate. The selling syndicate controls both output and price; the individual producing firm receives a price, which is sometimes called the accounting price, from the syndicate, while the syndicate in turn sells the coal at varying prices determined by the conditions of the market. The basic price in the English scheme thus resembles the accounting price paid by the German syndicate to the coal producer, while the authorised sale price resembles the selling price of the syndicate. But there are important differences between the two cases. The German producer not only receives a quota, but is also guaranteed a market for the whole of that quota; he is free from all market risks, which are borne by the selling syndicate. The English Association fixes a quota for the individual member, but does not guarantee a market for his output, nor does it undertake the sale of the coal. The individual member is still faced with the task of finding customers, that is to say, he still accepts selling risks. Moreover, since he is forced to sell at a price determined for him rather than allowed to fix his own price, his market risks are likely to be, in many cases, even greater than before. On the other hand, if he fails to find a market for the whole of the output represented by his quota he will be guaranteed a market for the right to produce that amount by which his production falls short of the quota. Again, the accounting price which is paid by the syndicate to the German producer is determined by the class of coal produced; the basic price in the English scheme is to be determined by recent experience. But recent experience is not a safe guide; during the depression individual coal-owners have followed different price policies; some have reduced prices more than others in order to enlarge sales. Prices and sales are inseparable, but they will now be separated; although basic tonnages will be determined by producing capacities, prices will be determined by recent experience. In this respect, therefore, the scheme seems to be of a provisional character and it will be necessary, in due course, to introduce a better system of classification and a more scientific method of fixing basic prices.

It has only been possible, within the limits of a single article, to give a bald description of the existing and proposed schemes, together with an account of the most important defects revealed by experience. I have not attempted to submit an estimate of

the value of the new methods of organisation, nor have I discussed the relations, actual and possible, between the efforts of the central Association and the amalgamation movement in the coal industry.[1] The proposed scheme is admittedly complex, and may prove so defective as to necessitate still further development in the direction of syndication. It strengthens the position of the weaker undertakings and tends to perpetuate the existence of uneconomic mines. Finally, its operation is confined to one group of coal-fields which, though important, play a relatively small part in the export trade of the country. The history of the last eighteen months provides a fascinating subject of study to all serious economists.

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P.S.—Since the above article was sent to the press an important Memorandum has been published by the League of Nations on "The Problem of the Coal Industry." The Memorandum contains not only elaborate statistics of the coal production of the various countries of the world but also instructive tables showing the variations in prices accompanying variations in output. The latter afford evidence in support of my statement that the demand for coal is highly inelastic. The statistics relating to producing capacity and output submitted in the above article are consistent with those contained in the Memorandum, though presented in different form.

[1] In February I gave two addresses on the subject to the Institute of Bankers and these are published in the May and June issues of the *Journal* of the Institute.

THE REPARATION PROBLEM: A DISCUSSION

I. *Transfer Difficulties, Real and Imagined*

§ 1

MR. KEYNES' article on "The German Transfer Problem" in the March number of this JOURNAL represents a forceful summing-up of the arguments of those economists who maintain that a transfer of the annuities fixed in the Dawes plan is beyond practical possibilities. His reasoning ignores, however, one very important side of the problem. In attempting to set forth why consideration of this neglected element must modify the practical conclusions I intend to imitate as far as it is within my power the brevity and clarity of Mr. Keynes' most elegant treatment.

Let me begin with a quotation: "If £1 is taken from you and given to me and I choose to increase my consumption of precisely the same goods as those of which you are compelled to diminish yours, there is no Transfer Problem. Those who minimise the question of transfer seem sometimes to imply that the above is a fair representation of present facts. To the extent that high taxation causes German consumers to buy less foreign goods, it is a fair representation. But clearly only a proportion of their abstention from consuming will be in respect of foreign goods, and, as far as one can judge at present, not a very large proportion" (p. 2).

This is the first part of a trend of reasoning which seems to me to be of fundamental importance in any discussion of international capital movements. It is a pity that Mr. Keynes has not followed it up, but has even failed to draw the consequences of the part of it he has stated in this passage.

He continues: "Moreover, the German balance of trade *already* has most of the benefit of this . . ." Evidently, no account is taken of the fact that, if Mr. Keynes has given me £1 and I have returned £2 to him, the effect on our trade balances must be the reverse of what it would be, if only the first transaction had taken place. Germany has paid half a dozen milliards of marks in reparation payments, but has borrowed twice as much. Thus, the German trade balance has not had the "benefit" of a reduction in total buying power,[1] but the "disadvantage" of an

[1] In a country, which neither borrows from nor lends to other countries and which maintains equilibrium on its capital market, "buying power" is identical with "aggregate of money earnings." Foreign borrowing, however, increases and loans reduce buying power. Similarly, inflationary credit policy increases and deflationary policy reduces it. In the former case new buying power is created by the banks; in the latter, money which is earned and saved is not lent by the banks to others,—it vanishes and buying power falls off.

increase to the amount with which borrowings have *exceeded* reparation payments. This increased buying power must have tended to swell imports and reduce exports.

This fact, that the total buying power has been increased, not reduced—and that consequently experience tells nothing concerning the efficiency of a transfer of buying power in creating a German export surplus—is ignored also in the following passage, which forms the starting-point for the whole reasoning in the rest of Mr. Keynes' paper:

"Now, what prevents Germany from having a greater volume of exports at the present time? Is it that the export trades cannot attract more labour at the present level of remuneration? Or is it that they cannot sell an increased output at a profit unless they can first reduce their costs of production? The available facts seem to indicate that the first, namely, inadequate supplies of labour at present rates of remuneration, plays little or no part, and that the second is the real explanation. That is to say, the solution of the Transfer Problem requires a reduction of the German gold-costs of production relatively to such costs elsewhere"[1] (p. 4).

Nothing is said about the influence of the German borrowings, which—being far greater than the reparation payments—seem to me to be the real explanation why the excess of imports into Germany is what it is. They also largely explain why Germany's productive resources have to such an extent been used for production of capital goods for the home market and have not increased the output and marketing of export goods.

These borrowings, in so far as they have exceeded the reparation payments, have not only increased the buying power in Germany and thus its importation of foreign goods; they have also reduced the buying power in the lending countries and, thus, their importation of German goods. It is true that the *direct* influence in this latter direction may not have been very great—as indicated in the first of the passages I have quoted—but indirect effects cannot be ignored.

Let us consider the nature of these indirect effects of a transfer of buying power.

[1] In the business world the impression prevails that at any given moment sales cannot be increased, except at the cost of price reductions. Every firm sells as much as it can, at present! Surely, neither *this* fact nor the existing unemployment justifies the conclusion in the text. What other facts are available? Compare the end of § 2 of this paper.

§ 2

A and B are two countries with normal employment for their factors of production. A borrows a large sum of money from B this year and the same sum during each of the following years. This transfer of buying power directly increases A's demand for foreign goods while it reduces B's. Thus, A's imports grow and its exports fall off.

If the sum borrowed is 100 mill. marks a year, the excess of imports in A brought about in this direct manner may be 20 mill. marks. For in large countries only a small part of demand turns directly to foreign goods or to export goods. The rest, 80 mill. marks, increases the demand in A for home market goods.

Evidently Mr. Keynes and the school of economists who share his view think that this is the end of these 80 mill. marks. As they do not directly increase the excess of imports, they can have no effect whatever on the balance of trade. They can be left out of the reasoning altogether.

I venture to suggest that, on the contrary, this amount of borrowed buying power deserves special attention. It sets in motion a mechanism which indirectly calls forth an excess of imports in A of about the same magnitude. Just as the loss of this buying power indirectly creates an export surplus in B; or, rather, these changes in buying power bring about at the same time an excess of imports in A and of exports in B.

The increased demand for home market goods in A will lead to an increased output of these goods. In a progressive country this means that labour and capital, that would otherwise have passed to export industries and industries producing goods which compete directly with import goods, now go to the home market industries instead. Output of these "import-competing" goods and of export goods increases less than it would otherwise have done. Thus, there is a relative decline in exports and increase of imports and an excess of imports is created.

A corresponding adjustment takes place in B. Home market industries grow less as a result of reduced demand for their products, and the labour and capital turns in greater proportion to export industries and industries manufacturing goods which compete directly with import goods. The outcome is an excess of exports. B finds a widened market for its goods in A as a result of the adaptation of production which takes place in that country. Thus, the readjustment of production is the consequence of the change in buying power in the two countries.

The monetary mechanism which brings about the change varies with the organisation of the monetary system. In all cases of fixed foreign exchanges, however, there is an increase in monetary buying power in A and a decrease in B, which may be much larger than the 80 or 100 mill. marks. A secondary "inflation" and "deflation" may be necessary to bring about the adaptation of production and trade quickly enough. The more sudden the readjustment has to be, the greater this inflation in A and deflation in B, and the greater the changes in sectional price levels that are called forth.

The character of these price changes must be discussed briefly. Home market prices tend to rise in A and fall in B, relative to prices of export and import goods and prices of the goods which compete with import goods. The readjustment of production is partly, but partly only, the consequence of this change in "sectional price levels." [Production has a tendency to expand in the same way as demand, *i.e.* as the development of "markets," even without the stimulus of considerable price changes.]

It is not necessary that A's *export* prices should rise and B's fall. Thus, B need not offer its goods on cheaper terms of exchange to induce A to take a greater quantity of them. Indirectly, however, it is probable that a certain shift of the terms of exchange will take place. The increased buying power in A will to some extent affect also the prices of its export goods and its "import-competing" goods in an upward direction, while the corresponding classes of goods tend to become cheaper in B. In that way the readjustment of the balance of trade is made easier.

Note that these price changes are quite different from those assumed by the classical barter theory, which seems to underly Mr. Keynes' analysis. Mill and after him Edgeworth, Taussig [1] and many of their followers would say that *B must offer its goods on cheaper terms of exchange in order to induce A to buy more.* Thus, the primary price change is one between the prices of import and export goods in both countries, not between prices of these international goods and of home market goods, as explained above. This erroneous conclusion is reached because of the fact that the shift in buying power is ignored, except in so far as it *directly* affects demand for international goods. It is left out of account that the demand conditions—the demand curves

[1] Professor Taussig seems to me to present two different and incompatibl theories: (1) the barter theory of Mill; (2) a theory of the monetary and price mechanism, which has been further developed by Professor Viner, with whom I am in substantial agreement.

in an analysis *à la* Edgeworth in the ECONOMIC JOURNAL of 1894—are changed not only by the 20 but also by the 80 mill. marks.

If the mechanism I have endeavoured to indicate briefly above corresponds to reality, evidently a sufficient adjustment of the balance of trade may take place without any considerable reduction in B's export prices or increase in A's. It seems, therefore, very misleading to represent the increase in B's exports as due entirely to a reduction in its export prices.

Of course, a discussion of the elasticity of demand for B's export goods, which tacitly assumes demand conditions to be unchanged, must reach the conclusion that considerable increases in the value of its exports are impossible. As Mr. Keynes points out: "if a reduction in price of 10 per cent. stimulates the volume of trade by 20 per cent., this does not increase the value of the exports by 20 per cent., but only by 8 per cent. ($1{\cdot}20 \times 90 = 108$)" (p. 5). An increase by 20 per cent. as a result of a 10 per cent. price reduction may appear as a very great elasticity of demand, and yet the value of exports grows only by 8 per cent. How violent, then, must the price reduction be, if export values are to increase by 40 per cent. as in the German case, when the borrowings have ceased and reparations have to be paid by means of an export surplus.

The impression becomes quite different if it is remembered that the mechanism of adjustment indicated above will be at work and that exports from the lending (indemnity-paying) country will, therefore, grow even if export prices are not reduced at all relative to prices of international goods in other countries. In this connection it should also be noted that—even regardless of changed demand conditions—the volume of exports of a country is not a function solely of its export prices relative to prices abroad. More or less capital and labour may be used for the building up and support of marketing organisations with corresponding effects on sales abroad. If it were not for these and other similar circumstances, it would be difficult to see, for instance, how import duties can reduce the export trade considerably and, reversely, how a return to free trade, which in many cases would reduce costs in export industries only a little, can substantially increase the volume of exports. Remember also that many German goods which lay on the border line of "exportability" may be sold in large quantities if their prices fall 10 per cent. With this background an increase of exports by 30, 40 or 50 per cent. does not seem impossible.

§ 3

Of course, the assumption made above concerning A and B, that their productive factors are normally employed, does not apply to post-war conditions in Germany or all the Allied countries. In my opinion this fact does not, however, invalidate the conclusions. If the period of transition, during which Germany is to create an export surplus, is not less than five or six years, it will almost certainly contain a year or two of fairly full employment of the labour and capital which is not for some special reason immobilised (as many English miners seem to be at present).

I suspect that one of the reasons why most people are inclined to exaggerate the difficulty in creating a German export surplus is the impression of the "practical" business man, who has already a large export trade, that it is difficult for him to increase his sales abroad. This impression, however, is misleading, as it is based on a tacit assumption of unchanged demand conditions and fails to take into account the fact that many firms may pass from exporting practically nothing to considerable sales abroad during a period of five or six years.

Another fact to which little attention has been given in the recent discussion is that the present reorganisation of production, partly with the aid of foreign capital, has not yet had time to show its full effect on German competitive power and sales in other countries.

Let me add that experience speaks very strongly in favour of the conclusion that adjustment of trade balances go much easier and even quicker than the orthodox theory would have it. To take the latest example only: is it not surprising that one has heard so little of transfer difficulties during the last five years, when one single country has had a net import of capital (over and above its own payments to other countries) of six or seven milliards of marks?

That country is Germany.

It is not, of course, my intention to deny that a transfer of sums of the same magnitude as the Dawes annuities may meet considerable difficulties. If the policy of protection and of preference to home-made goods, which has been growing so much after the war, is intensified when German exports begin to grow, and is used consistently to prevent such exports, then the reparation payments may become virtually impossible. There can be little doubt that if Great Britain turns to protection and other countries are thereby led to raise their tariffs, the chances of substantial reparation payments are considerably reduced.

It is also clear that the rise in German wages and home market prices in recent years has been, although probably unavoidable, yet very unfortunate, as in the future it will almost certainly be necessary to deflate wages and prices to some extent, particularly in home market industries, if an export surplus is to be created. Possibly this difficulty may be partly evaded if rationalisation continues at a rapid pace and thus the effectiveness of production is raised, while monetary wages are kept constant.

§ 4

Granted, however—for the sake of argument—that an *automatic* transfer of several milliards of marks may be impossible, can the conclusion be defended that reparation payments of this magnitude are impossible? Is there anything in the reasoning of economists upholding the former thesis which proves that deliveries in kind of a similar size would also be impossible?

The answer seems to me to be in the negative. Whatever the possibilities of automatic transfer, there can be no doubt that deliveries in kind, *i.e.* an *organised shifting of demand*, can bring about an export surplus from Germany of the size and value envisaged in the Dawes plan. German taxation can make a sufficient quantity of German factors of production available for this purpose. Such a policy, like one of automatic transfer, assumes a readjustment of production in the countries which are to receive the indemnity payments. As everybody knows, this is not Great Britain or Italy, but partly France, partly and largely the United States (reparations being used to pay the inter-allied debts). Almost certainly, however, the United States will continue to export huge sums of capital to South America. It may be argued, therefore, that the ultimate recipients of the reparation amounts are France and South America. In principle, the safest and simplest way of organising the reparation payments would be a policy of deliveries in kind from Germany to France and the South American nations, which require imports of many commodities German industry is well able to produce.

Unfortunately, such a policy is outside the range of practical possibilities. The inevitable opposition of powerful American and British export industries to any such plan is one of the real obstacles, perhaps the greatest of them all, which lie in the way of an organised solution of the reparation problem.

BERTIL OHLIN

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II. *A Rejoinder*

I HAVE found difficulty in making sure that I understand Professor Ohlin's argument in his article printed above. I have, however, had the benefit of some correspondence with him. If, in spite of this, I am still guilty of *ignoratio elenchi*, it had better be clear to the impartial reader that I am thus guilty. So I will begin with my own summary of what his argument seems to me to amount to—not as a contribution to the theory of International Trade, but in its application to the particular case of German Reparation payments, which is all that I am discussing on this occasion.

My tendency to misunderstand Professor Ohlin centres, I think, round the meaning he attaches to the phrase "buying power in Germany."[1] At first I supposed him to use this phrase as equivalent to "aggregate of money-earnings in Germany," and I was, therefore, disposed to retort—"How can 'buying power' fall unless either the volume of employment or the rate of earnings falls? But that was precisely the contention in my original article—namely, that the problem set to Germany is one of reducing her money-rates of earnings. Consequently, the amount she can pay in Reparations will depend on the degree in which she can effect this. For foreign loans do not increase incomes within Germany, except in so far as they enable the volume of employment and the rate of earnings to be maintained (or taxes and savings to be reduced); what they do is to enable German workmen to be employed in producing *capital* goods."

But this does not meet his point. The benefit to Germany's balance of trade which he seeks to emphasise is irrespective of whether the aggregate of money-earnings in Germany does or does not fall. Perhaps I can clear up the issue as follows:

There are—according to me—*two* developments (other than a relative increase in German industrial efficiency and apart from the reduction in consumption directly caused by reparation taxes) which are capable of improving her *net* trade balance on income account, namely:

(i) A reduction in the rates of gold-wages of German factors of production relatively to rates elsewhere will, by increasing the competitive power of German manufacturers, enable them to absorb, into the production of exports or of goods previously imported, workers who are now unemployed or employed in producing capital goods inside Germany financed by foreign loans;

[1] He has since added a footnote to amplify his meaning.

(ii) A reduction in the real wages of German workers will cause them to consume less, and a part of this reduced consumption will have the effect of benefiting the balance of trade.

My article emphasised (i) and allowed incidentally for (ii). But Professor Ohlin claims that there is a *third* development (iii) to which importance ought to be attached, namely:

(iii) If Germany borrows less from abroad [1] (net), this means that some other country or countries will borrow more (or lend less). This will reduce German demand for foreign goods and cause a new demand from other countries at the existing international price-level. Germany will get the benefit of some part of this new demand and will be able, in virtue of it, to sell more exports than before at the old price. These are the mitigations of the severity of her problem which, he considers, I have overlooked. My reply is as follows:

I was assuming that if Germany borrows less, the *first* effect would be to bring in the Transfer Protection clauses of the Dawes scheme. If so, the result would be that she would, for the time being at least, pay less Reparations. Now if this is correct, Professor Ohlin's assumption, that, if Germany borrows less from abroad, some other country or countries will borrow more (or lend less), is invalid. For if Reparation payments are diminished to the same extent that foreign borrowing is diminished, the international balance sheet between Germany and the rest of the world is exactly as it was before. If A lends B £1 and B uses the £1 to repay a debt he owes to C, and if A's cessation of lending means that B must stop repaying C, the affair is a wash-out so far as B's position is concerned. Professor Ohlin argues: No! A, by ceasing to lend B £1, will have that £1 extra to buy with, and that will increase B's sales and so enable B after all to go on repaying C £1. He forgets that if the £1 A lends to B and the £1 B repays to C stop simultaneously, A's increased buying power is balanced by C's diminished buying power, so that international markets are where they were before—particularly if C happens to be the same person as A under another name. Professor Ohlin entirely ignores, so far as I can see, the possibility (indeed one might say the certainty) that if Germany's foreign borrowing falls off, so, simultaneously, will her Reparation payments—except in so far as *my* factors operate.

[1] A phrase in Professor Ohlin's article suggested that he intended his argument to apply only to loans *in excess* of reparation payments, but he has agreed in correspondence that there is no reason to treat differently loans in excess of reparation payments and loans not in excess.

In so far as Germany can, for my reasons, pay Reparations without borrowing, these payments will, it is true, react on the levels of incomes abroad, causing them to move slightly upwards. Not necessarily by the full amount, because the increase in German exports may be partly at the expense of unemployment amongst her competitors and of their using their resources less effectively. But the increased "buying power," due to the fact of Germany paying something with less assistance than before from borrowing, will have been *already* used up in buying the exports, the sale of which has made the Reparation payments possible. Professor Ohlin's argument only amounts to saying that, if Germany *is* paying Reparations, this proves that she *can*. But the fact that she can if she can does not prove, as he seems to think, that she can if she can't!

Let me repeat my point in the form of an illustration. Let us assume (what was not far off the truth a short time ago) that Germany is borrowing £200,000,000 a year and paying £125,000,000 in Reparations. Let us then suppose that her foreign borrowing drops to £100,000,000 and her Reparation payments to £50,000,000; *i.e.* she succeeds in improving her trade balance, borrowing and Reparations apart, by £25,000,000. Now it is true that we have increased "buying power" for £25,000,000 (not £100,000,000) in the world outside Germany. But this will have been exactly used up in paying for the £25,000,000 additional goods exported (net) from Germany, which have improved her trade-balance sufficiently to make her Reparation payments possible. Professor Ohlin has to maintain that the "increased buying power" is *more* than £25,000,000, and—if his repercussion is to be important—appreciably more.

Moreover, even if Germany were to meet the cessation of foreign lending by temporarily diminishing essential imports and were thus enabled to continue paying reparations for a time, in this case again, the increased buying power of the countries which take Germany's place as foreign borrowers will tend to be offset by the decreased buying power of the countries from which Germany previously purchased her imports; in other words, the loans Germany used to take to pay for imports will now be required by some one else to pay for the imports which Germany no longer takes.

I conclude, therefore, as before, that Germany must mainly depend, particularly in the first instance, on cutting her prices —which means cutting her wages. For there will be no "increased buying power" abroad for German goods, and no

"decreased buying power" within Germany, except as a *result* of my factors (i) and (ii).

It is true, of course, that everything in the economic world sets up a repercussion—which it is, as a rule, very difficult to follow up quantitatively or qualitatively. Thus if Germany succeeds in making Reparation payments, this will set up a new situation with a repercussion which *may* indirectly benefit Germany. But I see no reason to suppose that this repercussion would be large. For it would be scattered all over the world; so that, even if there *was* a repercussion, Germany would, surely, be very lucky to get so much as 10 per cent. of the benefit of it, if any. I confess that I was leaving out various conceivable changes in the outside world the repercussions of which might, in the long run, mitigate the severity of Germany's task—for example, a general growth of international wealth, prosperity and trade. Indeed the repercussions of the last-named would seem to me to be likely to be much greater as time goes on than the repercussions of that part of the growth of international wealth (outside Germany) which will be attributable to Germany's Reparation payments.

Let me add that I quite agree with what Professor Ohlin says in his § 4 about the theoretical possibilities of deliveries in kind. Organised deliveries in kind would get over the difficulties I have in view. But I also agree with him as to the practical obstacles in the way of this.

J. M. KEYNES

THE MONETARY THEORY OF THE TRADE CYCLE[1]

§ 1. SOMETHING like one-third of Mr. Hawtrey's new volume of essays on *Trade and Credit* is devoted to criticisms of arguments set out by me in *Industrial Fluctuations* and elsewhere. Much of this criticism is naturally detailed in character. Though useful to me personally and requiring attention in future revisions of my work, this portion of it does not deal with matters of sufficient general interest to warrant a reply in the ECONOMIC JOURNAL. There are, however, certain broad issues raised by Mr. Hawtrey's discussion, which are of far-reaching importance both for theory and for practice. The purpose of the article that follows is to define and study these. It is necessary, however, to warn the reader that Mr. Hawtrey is a writer whom I do not always find it easy to understand, and that I may, on this occasion, as I appear to have done before, unintentionally fail to represent his position correctly.

§ 2. It will be convenient to begin by setting out those propositions which are common ground. First, with industry and banking organisation as they now are, expansions of productive activity are, in general, associated with increases in the volume of credit and in prices, and contractions of productive activity with corresponding decreases. Secondly, the credit movements and the price movements, which accompany and are in part due to them, are an important factor in accentuating the range of the associated industrial fluctuations. Thirdly, if credit policy were so controlled as to keep the general price level substantially stable, the magnitude of these industrial fluctuations would, other things being equal, be reduced in an important degree, to the great benefit of society at large and particularly of wage-earners. This last very important practical inference is now accepted by the main body of economists, and Mr. Hawtrey's writings have done much to win recognition for it.

§ 3. We have next to elucidate, so far as may be, what precisely Mr. Hawtrey means by his thesis that "The trade cycle is a purely monetary phenomenon." He does not mean that *industrial fluctuations* are purely monetary phenomena. "It is the periodicity of fluctuations forming the trade cycle which I believe to be wholly due to monetary causes" (p. 175). But

[1] *Trade and Credit*, by R. G. Hawtrey, 1929, Longmans, pp. 189. 10*s*. 6*d*.

the term periodicity is not used in a strict sense. For a true periodic phenomenon is one whose recurrences are separated by a precise and constant time interval; and the trade cycle is not periodic in this sense. Mr. Hawtrey uses the term in a wider and looser way. "The central characteristic of the trade cycle is its periodicity. That, of course, is the meaning of the term *cycle*" (p. 82). But *any disturbance,* which embraces an upward and downward movement spread over a finite interval of time, can be depicted as a wave; and, if periodicity is compatible with variations in the height, length and inter-relations of successive waves, any series of such disturbances can claim to be periodic. At all events Mr. Hawtrey has provided no definition that would enable us to distinguish between degrees of variation in these respects that do and degrees that do not allow a series of waves to be periodic and to constitute cycles. This is very unfortunate. For it is impossible to discuss satisfactorily a thesis the terms of which are ambiguous.

§ 4. This difficulty, however, partly disappears when Mr. Hawtrey's doctrine is studied, not as a single whole, but divided into parts. So viewed it is seen to contain two main elements, one of which, at all events, seems at first sight to be clear cut. This first and more fundamental thesis is as follows. In any day or year there is in any community a certain volume of consumers' income expressed in money. So long as the sum-total of purchasing power embodied in money balances and circulating currency remains constant, this consumers' income constitutes also consumers' outlay, expended partly upon consumable commodities and partly upon machinery and plant (*i.e.* investment) (p. 83). If in these conditions no disturbances are initiated on the side of production, the price level must remain constant, and so also—this is the fundamental point—must the wages bill and the volume of employment. No access of business optimism, no new inventions opening up opportunities for profitable investment, no desire of dealers to add to their stocks, no decision of the Government to undertake capital expenditure, can augment employment or diminish unemployment in any degree; because, aggregate consumers' outlay being unchanged, an expansion in one part of it can only be made at the expense of an exactly equal contraction in another part. It follows that, provided the sum-total of monetary purchasing power—roughly, of bank deposits—is kept constant, the trade cycle—which for this purpose appears to mean all fluctuations in industrial activity initiated on the side of demand—would totally disappear.

§ 5. The foregoing thesis is what Mr. Hawtrey seems, so to speak, to hanker after, and certainly it is what he ought to maintain if his statement about " a purely monetary phenomenon " is to be justified. But in fact he does not maintain it; for in more than one passage he recognises, in effect, that the consumers' outlay may be modified, nor merely by an alteration in the volume of bank credit, but also by an alteration in the velocity of monetary circulation brought about independently of the volume of bank credit (pp. 113 and 169). But, while recognising this, he appears to regard it as an incident of quite subordinate importance, in such wise that, for a broad practical statement, what was set out in the preceding section may be taken as an adequate picture of the facts. Let us write M for the stock of money (bank balances and circulating currency) in the country; V for the number of times in the year that a representative unit of money becomes consumers' income and outlay; R for the real income, including the income of capital goods, expressed in some representative commodity or service, that accrues to the community in a year; and P for the price in money of a unit of the aforementioned representative commodity or service. We then have the equation $VM = PR$. The statement of the preceding section is that V is in its nature constant. Mr. Hawtrey in fact allows that it may vary, but implies that it will only do so in exceptional circumstances (p. 110), about which we need not trouble ourselves seriously.

§ 6. If this view were right, it would follow, as Mr. Hawtrey contends, that, broadly speaking, Government expenditure on public works in times of depression can only increase the volume of employment if the expenditure is financed through the creation of bank credits; that the same result could be achieved by creating credits without the *addendum* of public works; and that, therefore, these " are merely a piece of ritual, convenient to people who want to be able to say that they are doing something, but otherwise irrelevant " (p. 112). There is, however, a comment to be added here. It is true that conditions may easily be such that a given programme of public works will cause employment to expand to exactly the same extent that some defined lowering of the discount rate, leading to an equal net increase in the volume of credit, would do. In these conditions the two " remedies " may properly be regarded as alternatives. But it does not follow that public works are mere ritual. They bring about the required expansion of credit without lowering the discount rate; the other plan involves lowering that rate.

For a community with an independent "managed" paper standard, it may well be that the discount method would usually be preferable. But, with a gold standard, the risk of a large foreign drain may render an extended use of this method impracticable. No such obstacle lies in the way of the rival method.

§ 7. The preceding paragraph was in the nature of a digression. Let us return to the main issue of § 5. The truth of the matter, as I see it, is that consumers' income and consumers' outlay can be varied in large and important ways by influences acting on V; and that, therefore, there is nothing to prevent P or R or both together from rising or falling substantially even though M remains rigidly fixed. Let us begin with a simple case. Suppose that, instead of spending £100 in buying food and clothes for my personal consumption, I use the £100 to engage painters and plasterers, hitherto unemployed, to repair my house, these painters and plasterers using the money to buy the food and clothes that I forgo. In that event certain money units, that would otherwise have become income and outlay during a year n times, now become income and outlay $(n + 1)$ times. That is to say, V is increased, and, therefore, of course, VM also. In other language, aggregate consumers' money income and money outlay are increased—and the Income Tax Commissioners' Accounts will show this—by the £100 that I paid to these men. My money income and outlay are the same as they would have been otherwise, theirs is £100 larger. Alongside of this addition to aggregate money income and outlay there is an addition to real income represented by the services of these men or the commodities that they produce. According to the relation between the addition to money income and the associated addition to real income, P may increase or decrease or remain unchanged. But in any event aggregate money income (which is equal to outlay) is increased, in spite of the fact that M has remained unaltered, and aggregate real income, along with the productive activity—employment—that gives rise to it, is also increased. Exactly similar reasoning applies if the Government takes from me £100, which I should have devoted to purchases for my personal consumption of food and clothes, and employs it to hire otherwise unemployed workmen in building roads or bridges.

§ 8. To obviate misunderstanding it is here necessary to make clear a matter about which I think there is no difference between Mr. Hawtrey and myself. This has to do with the precise significance to be attached to the terms money income

and outlay and its correlative the velocity of monetary circulation. Money income is not the sum-total of money *which flows through people's hands* during a year, but the sum-total which becomes available to them for spending in the purchase of services, consumption goods or capital goods. Thus, if a piece of lace, the cost of the raw material in which may be neglected, is sold by an artist to a wholesale dealer for £50, is sold by him to a retail dealer for £60, and by him again to a consumer for £75, the money income accruing to the artist is £50; but that accruing to the wholesale dealer is not £60 but £10, and that accruing to the retailer is not £75 but £15; the income of all three aggregating to the £75 which the final purchaser pays. The velocity of monetary circulation per year is measured by the consumer's income thus defined divided by the stock of money. Hence, if the services now rendered by three middle-men come to be rendered instead by six for the same total charge, so that money changes hands twice as often as before against goods—which, of course, also change hands twice as often as before against money—my V is not altered and aggregate money income and outlay are not altered.

§ 9. This proposition, which nobody, I think, would dispute, carries with it as a logical consequence the further and more important proposition that consumers' income and outlay are not, so to speak, self-subsistent, but are derivative concepts, secondary to and built upon the concept of real income. Thus, consider the expression VM, in which they are represented algebraically. If I, in the course of a year, whether directly or through the Government, hand over £100 in exchange for the services of painters and plasterers, instead of holding it as cash, nobody doubts that V is increased and that the sum-total of money income (or money outlay) rises by £100. But, if I give £100 to a friend, or if a father makes an allowance of £100 to his son, provided that the recipient employs it in the same way as the donor would have done, V is not increased, and the sum-total of money income (or money outlay) remains what it was before. If the Government takes £100 and hands it over to a war pensioner or in interest on War Loan, the case is economically analogous to the second of the above two cases: in spite of the fact that in the reckonings of the Income Tax Commissioners it is treated as analogous to the first. Mr. Hawtrey, by implication, adopts this generally accepted interpretation of V. Clearly then consumers' income (and outlay) excludes all categories of free gifts. Consequently it may change in size

even though the quantity and all the processes of flow undergone by money remain unaltered. If, for example, a man, who has been out of work and receiving £2 a week in charity, comes instead to earn £2 a week in wages, aggregate consumers' income or outlay is increased by £2 a week. The *definition* of consumers' income and outlay is such that, other things being equal, the passage of workpeople from unemployment to employment carries with it an increase in the community's money income (and outlay) exactly proportional, on the assumption that prices remain unchanged, to the increase in its real income.

§ 10. I have said that Mr. Hawtrey, while regarding variations in the velocity of circulation as of minor importance, recognises quite definitely that they may occur. The first half of his thesis, when set out so as to take account of this, is to the effect that, unless *either* M *or* V increase, PR cannot increase (p. 169). Since VM = PR this is of course true. We must be careful, however, not to infer from it that, if the banking system so controls the volume of credit as to keep the price level stable despite variations in V, industrial fluctuations will be eliminated. Constancy in P implies constancy in $\frac{VM}{R}$; but it does not imply constancy in R. I have argued elsewhere that, if P were stabilised, fluctuations in R would in fact, other things being equal, be substantially reduced; but I cannot accept what is, I think, Mr. Hawtrey's view (p. 80) that the trade cycle would be, for all practical purposes, eliminated.

§ 11. In view of current events it may be not inappropriate to discuss in a more positive and direct manner the question how far in a régime of stable general prices, *i.e.* apart from inflation, it is possible by means of Government expenditure to diminish the volume of unemployment. Imagine a large isolated island in which the land, buildings, machinery and so on are owned by non-wage-earners, while the manual work is done by labourers hired directly by them for wages paid in kind. All the labourers are supposed to be exactly alike, and there is no difficulty about their moving from one job to another. They insist absolutely on a wage of one bushel of wheat per week, and their numbers, in conjunction with the environing conditions, are such that it pays non-wage-earners to employ ninety per cent. at that wage, leaving ten per cent., say one million men, unemployed and receiving, through the Government, out of funds raised from non-wage-earners say $\frac{10}{h}$ million bushels of wheat per week for

maintenance, *i.e.* $\frac{1}{h}$ bushels of wheat each. The Government, setting out to "conquer unemployment," collects from non-wage-earners, instead of $\frac{10}{h}$ million bushels of wheat for maintaining the unemployed, a *net* weekly sum of R bushels of wheat for a campaign to find work for them. I ignore the fact that in practice part of this sum will go to superintendents and other non-wage-earners. Let the net number of men for whom employment is found be x. This net number is then equal to the difference between (1) the gross number that the *use* of R bushels per week by the Government in its campaign calls into employment and (2) the number that the *collection* of an additional sum of $\left(R - \frac{x}{h}\right)$ bushels per week—for a reduction in the number of the unemployed by one man saves the Government $\frac{1}{h}$ bushels of wheat per week—causes to lose their employment. To determine the net number of men brought into employment, we have then the equation $x = \phi(R) - \psi\left(R - \frac{x}{h}\right)$.

Now at first sight it might seem that the *gross* number of men for whom employment will be created, on the assumption that a rigid wage rate of one bushel per week is maintained, must in all circumstances be exactly R. This, however, is not so. If the Government spends its weekly R bushels in setting men directly to work on roads, bridges, or any form of capital development, then, indeed, the number is R. But, if it sets them to work in making consumable goods (in my simplified statement, growing wheat), it then gets back and has available for further wage payments what these men produce; and, again, it gets back and has available what the recipients of these further wage payments produce; and so on. How many men it calls into work altogether depends then on the shape of the curve depicting the marginal wheat output of varying numbers of men. If this curve is a straight line with a slope of 45 degrees, the total number called in to work will be $R(1 + \frac{1}{2} + \frac{1}{4} \ldots)$, *i.e.* 2R men. If the curve is a straight line flatter than this, the number is greater than 2R; if it is steeper, less than 2R. In times of depression there is reason to believe that the curve representing the marginal productivity of labour in consumption industries (*i.e.* the real demand curve for labour in those industries) is not steeply inclined. If this be so, the number of men called to employment by the *use* in the

manner described of the campaign fund of R bushels of wheat per week will be several times R. There is yet a third way in which it is open to the Government to use its levy. This is to give a bounty to private industrialists proportionate to the wages bill paid by them. In this case the additional number of men called into employment will be the same as in the case just discussed.[1]

In investigating the debit side of the account, namely, the number of men that are driven out of employment by the *collection* of $\left(R - \frac{x}{h}\right)$ bushels of wheat per week, we have to distinguish immediate and direct effects from indirect subsequent effects. The number of men immediately and directly driven out of employment depends on how much of the $\left(R - \frac{x}{h}\right)$ bushels of wheat is taken from what would have been invested in setting labour to work in making capital (*i.e.* non-consumption) goods. Let the proportion of the levy that is so taken be $\frac{1}{c}$. Then

$$\psi\left(R - \frac{x}{h}\right) = \frac{1}{c}\left(R - \frac{x}{h}\right).$$

Indirectly, in consequence of the withdrawal every week of this quantity of wheat from what would have been non-wage-earners' investments, the annual supply of new capital equipment co-operating with labour to their order is likely to be contracted somewhat. Except, therefore, in so far as the new wage-earners called into employment are engaged in making this sort of capital equipment, a net reduction in the annual supply of it will come about. Since, however, the normal annual supply is a small part of the total stock, the percentage reduction in this stock (as against what it would otherwise have been) cannot be other than very small until the levies have been in operation for a considerable number of years. It follows that the number of men thrown out

[1] It should be noted that, whereas under an arrangement in which the Government employs labour directly the net levy (R) made on non-wage-earners is equal to the gross levy on them, when the bounty method is employed, it, in general, falls short of the gross levy (which is equal to the aggregate sum paid in bounties) by a large amount. The gross levy is equal to the net addition to the wages bill where the demand curve for labour has the form of a rectangular hyperbola. These relations are easily displayed on a diagram. The reason why the net levy on non-wage-earners, which is required to set a given number of men to work, is larger when the Government devotes this levy to making roads or other public works than in any other cases is, of course, that in this case the levy has to cover, not only the excess of the wages bill of the new work-people over the value of their work, but also this value itself—which the Government retains in its own hands.

of employment, in this indirect way, through the collection of the levy R, is bound for the first year or two to be very small; though, if the levy policy is continued and other things remain the same, it will be liable to grow in a cumulative manner. Attention may, therefore, be concentrated on the number thrown out by the direct process described above.

We have then the equation $x = \phi(\mathrm{R}) - \frac{1}{c}\left(\mathrm{R} - \frac{x}{h}\right)$. If $\phi(\mathrm{R}) = m\mathrm{R}$, this reduces to $x = \mathrm{R}\dfrac{m - \frac{1}{c}}{1 - \frac{1}{c}\cdot\frac{1}{h}}$. Suppose, for illustration, that $\frac{1}{c} = \frac{3}{4}$ and $\frac{1}{h} = \frac{1}{2}$. Then, in the case where $m = 1$, $x = \frac{2}{5}\mathrm{R}$: where $m = 2$, $x = 2\mathrm{R}$: and similar calculations can be made when any given values are assigned to c, h and m. It will be noticed that, for some values, x is greater than $m\mathrm{R}$. The results attained are subject to the conditions (1) that the policy under review is practised for a short period only, and (2) that the rate of real wages is not raised above the original one bushel of wheat per week.

§ 12. Before passing on to the second half of Mr. Hawtrey's thesis, I venture to interpolate yet another consideration, which, while it lies outside his discussion, is nevertheless relevant to the first half of it. If $\mathrm{F}(t)$ be a function of time (t), the condition to make $\frac{\mathrm{F}'(t)}{\mathrm{F}(t)}$ constant is that $\frac{\mathrm{F}'(t)}{\mathrm{F}(t)} = \frac{\mathrm{F}''(t)}{\mathrm{F}'(t)}$. That is to say, if the daily proportional increase in a stock of things is to be constant, the daily proportional increase in the new production of those things must also be constant. If the percentage rate of increase of the stock is growing, the percentage rate of increase in new production must be greater than the percentage rate of increase in the stock: and in the converse case less.[1] Let us suppose that, roughly speaking, the flow of consumable goods produced with the help of machinery varies directly with the stock of machinery. It follows that, other things being equal, so long as wealth and productive power are increasing in a constant geometrical proportion, the ratio of the numbers of people employed in instrumental industries and in industries making non-durable consumption goods will remain the same; but that

[1] My equation for simplicity assumes that the stocked things last for ever. It is easy to show that the same result holds good if either they last for a definite number of days or if a definite proportion of those in existence disappears every day.

in periods when the proportional rate of progress is being accelerated there will be a relative boom, and in periods when it is being retarded a relative slump in the instrumental industries. Since, therefore, work-people are not very mobile between instrumental industries and industries that make non-durable consumption goods, there is a *prima facie* case for the Government's allocating its own constructional work, which is not concerned with non-durable consumption goods, so far as is feasible, to periods in which the proportional rate of progress is retarded. There is, of course, nothing novel about this practical conclusion. But the analysis behind it is, I think, interesting; for the interrelation between stocks and flows is fundamental in several large problems, including, among others, the central problem of money and prices.

§ 13. I now turn to the second half of Mr. Hawtrey's main thesis. Had the first half been successfully established, he would have proved that variations in the volume of credit, other than such as serve to cancel variations in the velocity of monetary circulation, are a *necessary condition* of the trade cycle. But he would not by any means have proved, even if we waive the point about velocity, that the trade cycle is a purely monetary phenomenon. For the movement of credit may be merely a mechanism or channel through which genuine causes, *e.g.* swings of business opinion between optimism and pessimism and so forth, exercise their influence. Thus the movements of golf-clubs are a necessary condition for playing golf: if there were no golf-clubs there would be no game. But this does not prove that a round of golf is purely a club-maker's phenomenon, so that no urgency on the part of golf-players' wives could in any degree modify the period of their rounds. To establish this Mr. Hawtrey needs a further proposition, namely, that a golf-club, once created, possesses in itself an internal rhythm, through which it impels its possessor from tee to tee with a defined frequency. In less frivolous language, he needs to show that any small accidental change may start an expansion in the volume of credit; and that this, once started, "grows, and will continue to grow, till the banks take active steps to stop it. Under the conditions we have assumed they do not take these steps until the reserve position is affected, and by the time that occurs, the movement will have gathered considerable momentum. The process of checking and reversing this momentum will be a fairly protracted one" (p. 97). In other words, the rhythm through which the volume of credit moves, and on which the associated movement of industrial activity

directly depends, is a rhythm inherent in the structure of the banking and credit organisation. It is thus independent of the play of non-monetary circumstances, whether variations in the temper of business men, Government policy, or anything else whatever. If this could be established it would follow, not merely that these things cannot operate on the trade cycle otherwise than through variations in the volume of credit, but that they cannot operate on it at all.

§ 14. Now, in order to warrant such a statement as that the trade cycle is a purely monetary phenomenon, Mr. Hawtrey clearly ought to maintain some such proposition as that just set out. In some passages he seems to do this; to hold that, once a credit movement has been started by some small fortuitous event (p. 98), the *whole* of what happens subsequently is determined by the internal stresses of the banking system, independently of what the rest of the community may do. Other passages, however, give a different impression. "Traders' expectations, whether erroneous or correct, form one element in the problem of the regulation of credit. But under pre-war conditions the regulation of credit was guided by the state of the gold reserves. If traders' expectations were of a kind to support and assist the action of the banks in encouraging or discouraging borrowers, they facilitated their task. But, if traders' expectations tended in the contrary direction, the bankers could not surrender their policy. They were bound to take whatever measures were necessary to make it prevail. . . . If merchants refused to be influenced in any way by expectations as to the future state of markets, the psychological factor would drop out, but the credit cycle would persist. Borrowers would respond to the rate of interest, and the volume of sales would respond to the volume of borrowing. Therefore business psychology, though in practice a very important factor in the trade cycle, is not essential to it" (pp. 100–1). This passage may be interpreted to mean that the state of business psychology makes no real difference to the process of the trade cycle; bankers' efforts to assert their policy being so adjusted to the movements of business psychology that, whatever these are, the net effect of bankers' efforts and business psychology combined remains the same. In the last essay of his book, however, Mr. Hawtrey rejects this interpretation and falls into line with more ordinary views. "If the monetary theory of the trade cycle traces the period to the rate of progress of credit movements in their effects upon the gold reserves, that does not mean that this rate of progress is not itself effected

by non-monetary causes" (p. 176). This at last is perfectly explicit.

§ 15. Now nobody has ever doubted that under a gold standard an expansion in the volume of credit sets up a drain on the gold reserves; that the banking system cannot with safety allow this drain to go too far; and that the steps which it normally takes to protect its reserves tend also after a time to make the volume of credit contract. The structure of the banking system thus plays a very important part in determining alike the range and the duration of the swings which the volume of credit undergoes. But it does not—this is the "orthodox" view—play an exclusive part. When an upward movement begins, the rate at which the volume of credit expands is greater or less according as business men and (or) the Government are more or less keen to borrow money to extend their enterprises. The keener they are, the more quickly the moment arrives at which the banking system must take action to protect its reserves. The range and the duration of the movement depend in part upon the requirements of the banks' customers. In short, the banking system is not a penny-in-the-slot musical instrument: drop in a penny and a predetermined tune of credit is played. It is rather an elastic and resilient structure, whose processes are the joint product of its own nature and of the forces which from time to time are impressed upon it. Mr. Hawtrey in the end seems to accept this view. But, in doing so, he deprives his thesis, that the trade cycle is purely a monetary phenomenon, of all significant content. He explicitly recognises that non-monetary factors modify the cycle. He realises that the penny-in-the-slot theory is indefensible; but does not apparently realise that, with its disappearance, the challenging paradox which he has undertaken to defend is left unsupported in the air.

§ 16. In the foregoing paragraphs I have endeavoured to express the reasons for my dissent from Mr. Hawtrey's main theses in a precise and clear-cut way. What I have written is an argument: it is in no sense a review of his book. If it were, there would be much to say in praise of the latest work of a most ingenious and subtle writer. But Mr. Hawtrey is too well known to students of money and banking for that to be necessary, and he himself would greatly prefer discussion to compliment. Controversy for its own sake is as barren as it is boring. But controversy whose objective is what *should be* thought, not what *may be* said, is sometimes a midwife of truth.

A. C. PIGOU

THE THEORY OF INTERNATIONAL TRADE RECONSIDERED

THE purpose of this paper is to offer some criticism of the English classical theory of international trade and to suggest some other lines of analysis. That theory has always rested mainly upon the distinction made by Ricardo between external and internal mobility of economic factors. It abstracts too, for simplicity's sake, from cost of transport. Less obviously, perhaps, it assumes for each trading country fixed quantums of productive factors, already existent and employed, and asks how, subject to the assumptions, these may be most effectively applied under conditions of international trade.[1] On this foundation it builds its famous doctrines of comparative cost and reciprocal demand, working, in a money economy, through the medium of international gold flow, and expressing themselves in unequal divisions of benefit from international trade, as displayed by persisting income and price differences between the trading countries.

My present concern is not primarily with the correctness of this analysis, taken on its own ground, but with the limitations which its premises have imposed upon it. It is one question whether these conclusions follow logically from these premises.[2]

[1] See especially Schüller, *Schutzzoll und Freihandel* (1905), Chap. II.

[2] Professor Taussig's new book, *International Trade* (1927), is our most complete statement of the classical theory of international trade; it aims particularly at verification of theory, especially of the analysis of the mechanism of trade adjustment under conditions of gold standard and inconvertible paper; to this end it reviews the studies in verification made by his former students and presents the results of his own recent investigations. Edgeworth, though fundamentally in agreement with the classical analysis, offered keen criticism on particular points of doctrine. Marshall accepted without reservation the assumptions, but pointed out that comparative costs are subject to change under the play of reciprocal demand (*Money, Credit and Commerce*, Appendix J). F. D. Graham has made the same point independently and in more detail (*Quarterly Journal of Economics*, November 1923). E. S. Mason (*Quarterly Journal of Economics*, November 1926) cites the economists' (particularly Marshall's) recognition of the facts of industrial and occupational friction and of the variation of productive factors, and contrasts their rejection on these grounds of labour cost doctrine in domestic value theory with their acceptance of it in international value theory.

On assumptions essentially the same as the classical, Bertil Ohlin (University of Copenhagen), in a book to be published in the Harvard Economic Studies, rejects comparative costs and presents an analysis in terms of the principle of variable proportions. Comment on this analysis, which I had opportunity to

It is a more important question whether these are the premises best calculated to illuminate the subject-matter. The classical theory assumes as fixed, for purposes of the reasoning, the very things which, in my view, should be the chief objects of study if what we wish to know is the effects and causes of international trade, so broadly regarded that nothing of importance in the facts shall fail to find its place in the analysis.

It is the writer's view :

(1) that the premises are inaccurate in sufficient degree to raise serious question of the soundness of the theory, or at least of the range of its useful application to the trade of the world;

(2) that the relation of international trade to the development of new resources and productive forces is a more significant part of the explanation of the present status of nations, of incomes, prices, well-being, than is the cross-section value analysis of the classical economists, with its assumption of given quantums of productive factors, already existent and employed;

(3) that the international movement of productive factors has significance relative to comparative prices, incomes, positions of nations, at least equal to that of the trade in goods, and that the study of these movements tends to be minimised in a theory which abstracts from them as much as possible, and for the strictly logical support of its conclusions should abstract from them entirely; even to-day, in most treatments of international trade theory, capital movements are discussed mainly in connection with the balancing of payments, being limited to their currency ("purchasing power" or "substitutes for gold flow") functions in connection with trade adjustment mechanism, and are not

discuss in detail with Professor Ohlin during his visit to Harvard in 1923–4, must await the appearance of the book. Cliffe Leslie accepted the fact of imperfect mobility of productive factors, but would apply it to both international and domestic trade. French and German writers, such as Cournot, Nogaro, List, Schüller, have exhibited a marked unwillingness to accept either the premises or the conclusions of the classical theory.

Since I am not here primarily concerned with the mechanism of trade adjustment, it is unnecessary to discuss the recent literature of that subject, which contains such outstanding studies as Viner's *Canada's Balance of International Indebtedness*, which presents a view sympathetic to the classical explanations of the trade adjustment mechanism, though the facts presented seem to me less corroborative than the author feels them to be; and Angell's *The Theory of International Prices*, which includes an admirable summary of the literature and current views.

discussed as transfers of productive power; and international movements of labour are scarcely discussed at all;

(4) that international trade in goods, cost of transport, and mobility of economic factors—externally and internally—continually react upon each other; and by investigating these interactions—in this actual, growing, changing world—we may hope to throw light upon the causes and effects of international economic contacts,—upon market and productive organisation, upon prices and price processes, upon incomes and general well-being, and finally upon the wisdom or unwisdom of international commercial, financial and labour policies.

I

Viewed from this standpoint, the question whether we have, have ever had, or are ever likely to have the same mobility of factors between as within trading countries ceases to be *the* question on which the entire analysis must turn, and takes its proper place as one, only, among a number. In discussions of this sort the point most often made is that the persistent differences of incomes and prices in different countries—higher in the United States than in England, higher there than in Italy, higher there than in China—is striking proof of the international immobility of productive factors, *and therefore of the correctness and adequacy of the classical theory of international trade*. This remark is often regarded, indeed, as a signal to adjourn the discussion; nothing more remains to be said. I hasten, therefore, to disclaim intention to disprove so familiar a fact, though I shall have more to say about it at a later place.

Indeed, it is not Ricardo's *immobility* premise that stands most in need of defence, but rather his *mobility* premise, the assumed free movement of factors *within* countries. Perhaps no reminder is necessary that this assumption, no less than the other, is essential for the validity of the comparative cost principle. Bagehot, in the *Postulates*, discussed in penetrating fashion the relativity of economic concepts, set forth the conditions necessary for free domestic movement of factors, and concluded that value theories based on this hypothesis could not apply to any country in the world prior to the English classical period itself, and then only to the conditions of the "large commerce" upon which England, in advance of other countries, was embarked. Indeed, up to the middle of the eighteenth century, at least, the only "large commerce" had been international; nor is it mere

coincidence that productive factors appear then to have moved more freely between countries than within them.

One wonders, moreover, how correct this particular assumption was for the Ricardians' own time, or even later. International friction in the movement of capital and labour there doubtless has been, and international differences of incomes and prices. As Professor Taussig has recently said: "The same phenomenon, less striking as regards the differences in real and money wages (than those between England and India), but more striking as regards the closeness of the contact, appears on a comparison between Great Britain and continental Europe . . . in the latter half of the nineteenth century. . . . The Anglo-French treaty of 1860 led to a . . . range of import duties so low that it could have been no appreciable factor in maintaining differences in wages and prices. Yet these differences persisted."[1] But there is abundant evidence that such differences have persisted also *within* the trading countries. This was a phenomenon which especially interested Cliffe Leslie, who found within England, France, Belgium, Germany local diversities of all sorts, some which had persisted for centuries and some which were the product of the new nineteenth-century economic activity, in which foreign trade played a major part. In agricultural wages the diversities were "prodigious." "The real movement of agricultural wages throughout Europe will be seen to be in striking contradiction to generalisations, such as the tendency of wages to equality, which have passed with a certain school of English economists for economic laws: . . . generalisations, one may add, which were once useful and meritorious as first attempts to discover causes and sequence among economic phenomena, but which have long since ceased to afford either light or fruit, and become part of the solemn humbug of 'economic orthodoxy.'"[2]

On the other hand, Brassey, the railway contractor, found the price of labour of equal efficiency in railway construction (which involved international migration of labour and capital) nearly on a level throughout the railway building countries, and was led to wonder whether labour did not move more readily from country to country in the same employment than from occupation to occupation at home (another tempting generalisation, as dangerous perhaps as the one it attempts to supplant). It is unnecessary to offer elaborate proof of the existence of much

[1] *International Trade*, Part II, Verification, p. 154.

[2] Cliffe Leslie, "The Movements of Agricultural Wages in Europe"; *Essays*, 2nd edition, 1888, p. 379.

local and sectional difference of prices and incomes in Europe. Any casual American tourist, without getting far off the beaten track, soon becomes aware of the striking diversity of economic conditions, of prices and incomes, even as between near-by places, in any of the European countries. Even for England one has only to compare the north with the south, the east coast with the west, or the Scottish Lowlands with the Highlands, though in each case distances by rail or road are short.

The United States presents, in comparison, a case of high internal mobility, one reason for which I believe to be the relatively greater importance (and greater freedom from restriction) of the domestic market than the foreign, and the consequently greater growth of and closer connections between trade, transportation and movements of productive factors. Yet even here we are far from realising an approximate equality of either wages or prices, or return to capital, as between different parts of the country. In fact, the marked heterogeneity of economic conditions, of stages of economic development, of point of view, the diversity of economic interests, the "sectionalism" of the United States are quite as familiar, and have proved almost as significant in economic and political ways, as has the phenomenon of a large, highly-organised, competitive home market, with comparatively high internal mobility of goods and productive factors which that condition signifies. These two sets of facts doubtless account for the confusing statements made by the same writers, though not in juxtaposition: first, that the trade between our east, south and west closely resembles international trade; and second, that the high mobility of economic factors within the United States is a striking proof of the validity of the Ricardian theory of international trade and the premises on which it rests. That there are great disparities of incomes and prices between north, south and west is familiar observation. An obvious case in point is that of white textile workers in the Carolinas and Massachusetts. A Bulletin of the *U.S. Bureau of Labor*, July 1907, gives comparisons of wages in some fifty occupations in 1906 for the North Atlantic, South Atlantic, North Central, South Central and Western States; and compares wages in twelve leading occupations in the United States and European countries. Wages in the north, south and west differ strikingly in all occupations covered. The nearest approach to equality is between North Atlantic and North Central States, but even here the discrepancies run to as high as 40 per cent., and are distinctly greater than those shown for Germany and France. Shadwell,

in *Industrial Efficiency* (1906), concluded that in general German wages were about four-fifths and American wages seven-fifths of English wages; but the American data cited show that for blacksmiths western wages were 1·44 of southern, bricklayers' wages 1·46, carpenters' 1·44, painters' 1·47, plumbers' 1·57, linotype operators' 1·36, street labourers' 1·64. It is true there are explanations of these differences, such as "poor white" and negro labour in the south, concentration of immigrant labour in the north-east, and principally, I suspect, the unequal economic development of the several regions. But these explanations do not help the case, since they lie quite outside the assumptions of the classical theory. Indeed, as to immigrant labour, it is a noteworthy fact that its students emphasise both its enormous inflow from abroad (leading finally to restriction) and its very imperfect, un-"free" internal distribution; and some go so far as to assert that the immigration problem is primarily that of more effective distribution of the new labour rather than its exclusion. In any case, both aspects of the problem run singularly counter to the classical assumptions.

But of course the whole problem of geographic mobility in relation to the comparative cost principle is complicated still further by the facts of industrial and occupational friction within countries. Professor Taussig devotes a chapter of his recent book, *International Trade*, to the difficulties which "non-competing groups" raise for the Ricardian analysis: "Are we to conclude that the more simple analysis with which we started, resting on the assumptions of homogeneity in labour groups and uniformity in wages, become quite inapplicable where there are heterogeneous social and industrial conditions and wide diversities of wages in any one country? The answer depends not so much on the existence of non-competing groups in the several countries as on the similarity or dissimilarity of their make-up. . . . If the groups are in the same relative positions in the exchanging countries as regards wages · if the hierarchy, so to speak, is arranged on the same plan in each—trade takes place exactly as if it were governed by the strict and simple principle of comparative costs. . . . Now, in the Occidental countries—those of advanced civilisation in the Western world—as a rule *the* stratification of industrial groups proceeds on the same lines." [1]

If one accepts this generalisation for the advanced Western world (though perhaps all would agree that it raises just the sort of question on which economists desire more knowledge than is

[1] Taussig, *International Trade*, Chap. VI, pp. 48, 55, 56.

now available), it apparently has the effect of limiting the application of the comparative cost principle to the industrial countries of the West, and excluding not only Asia, Africa, South America, but also Russia, most of the Mediterranean countries, and some at least of the Scandinavian; and Professor Taussig's analysis would suggest exclusion of the German chemical industry before the war, as resting on special cheapness and abundance of chemists and their assistants, and of some American industries in so far as they have benefited peculiarly from the use of cheap, unskilled immigrant labour, or "poor whites" in the south (not to mention the negroes)—industries of the southern states, the steel industry and the textile industries in the north. England's "parasitic trades," products of slum labour or other specially low-paid labour, would doubtless comprise another list of exceptions. As to American immigrant labour, it is important once again to observe external mobility of labour producing internal immobility.[1]

The expression "advanced countries" suggests another major limitation upon the classical theory. Its premises do not, apparently, apply to the comparative internal and external *geographic* mobility of productive factors in countries of unequal economic advancement. Inferior organisation of capital and labour in the more backward country, inferior domestic banking, inferior internal means of communication, inferior perception of economic opportunity—these are obstacles to free movement which far outweigh those commonly cited as impediments to the movement of factors from the more advanced countries. The movement of capital, and to a less degree of labour, is therefore likely to be more free from a more advanced to a less advanced country than is the internal mobility of factors in the latter. This is part of the explanation of great cosmopolitan sea-coast cities, foreign trading centres, nearer to Europe in their economic and cultural contacts and characteristics than to their own interiors, and relying upon Europe for finance, transport and

[1] Ware, *The American Foreign-born Workers* (p. 10), gives the following percentages of foreign-born workers in American basic industries :

Iron and Steel	58
Bituminous Coal	62
Slaughtering and Meat Factory	61
Woollen and Worsted	62
Cotton Goods	62
Clothing	69
Leather	67
Furniture	59
Oil Refining	67

management; of the presence of large-scale foreign enterprise, mainly in the extractive industries; of the existence of problems of immigration or emigration, in countries and continents otherwise comparatively primitive, "pre-economic," to use Bagehot's phrase.

Even for the advanced countries the facts remain complex and generalisations about them not unfraught with some danger. This group contains some young countries and some old ones. As already stated, it contains countries which differ widely in their internal geographic mobility. It contains countries of essentially small unit enterprise and others of large-scale industry; countries which differ widely in productive technique, in the proportion of capital goods applied to land and labour, even in enterprises of similar sort. It contains countries which have pursued a policy of self-sufficiency and others which have sought the widest possible development of international economic relations. It contains countries which have exhibited markedly varying degrees of liberality and conservatism as to import duties, a circumstance which would itself account in part for international differences of prices and incomes. It contains countries, like the United States, as yet comparatively inexperienced in the export of capital, in which foreign bond issues must bear yields distinctly higher than domestic; and others, like England before the war, which have specialised in international finance, with effective marketing machinery, special knowledge of foreign countries to offset risks of distance, ignorance and inertia, the major part of whose organised distribution of new annual capital is external rather than domestic, and which enjoy in consequence special economies of large-scale enterprise in capital exportation compared with domestic distribution. One is reminded of Bagehot's cosmopolitan loan fund and his prediction that the economists' distinction between internal and external mobility of capital would be found to rest on no enduring foundation. That some capital is internationalised and moves freely from country to country in response to slight changes in prices, exchange rates, or interest rates is evidenced by the wide recognition of security movements, of both long and short term, as a substitute for, and preventive of, international gold flow.[1]

Whether for countries so diverse one can make *any* assumptions, applicable to all, regarding comparative mobility of economic factors is a question not easily answered. One cannot

[1] I must add, though space forbids discussion, that I am not content with the gold flow explanation of trade adjustment, even when thus qualified.

say, for example, whether capital moves more freely within such countries than between them (with sufficiently greater freedom, that is to say, to constitute a difference in kind for the purposes of value analysis) until one has considered also the nature and importance of industrial and other barriers to its free internal movement. That an entrepreneur is frequently apt to think in terms of his industry rather than of political geography was observed by List, and also by Adam Smith. It is increasingly true as industry and trade have become larger in scale. Oil, copper, gold, steel, textiles, rubber, chemicals, automobiles, telephone and telegraph, electric power, agricultural machinery, the match industry provide an impressive and ever-increasing array of basic industries which have expanded in disregard of political frontiers. They represent in some cases the projection by one country into others of its capital, technique, special knowledge along the lines of an industry and its market, as against the obvious alternative of home employment in other lines. They represent, in other cases, an international assembling of capital and management for world enterprises ramifying into many countries.[1] They suggest very strikingly an organic interconnection of international trade, movement of productive factors, transport and market organisation.

Logically followed through the classical doctrine of international trade contradicts itself; its conclusions contradict its premises. It is a theory of benefits from territorial division of labour. If, before trade, England and Portugal produce cotton cloth and wine, after trade is opened England will produce cloth for both and Portugal wine. This means national specialisation for the wider market. Specialisation is thus the characteristic feature and the root idea of international trade. But specialisation is the antithesis of mobility, in this case of domestic movement of productive factors. The point may be illustrated with the aid of Mill's famous objection to Adam Smith's "vent for surplus" principle of foreign trade, which he characterised as a "surviving relic of the Mercantile Theory":

"The expression, surplus produce, seems to imply that a country is under some kind of obligation of producing the corn or cloth which it exports; so that the portion which it does not itself consume, if not wanted and consumed elsewhere, would either be produced in sheer waste, or, if it were not produced, the corresponding portion of capital would remain idle, and the mass

[1] They represent, in some cases, the response of industries to tariffs and patent laws, providing one class of cases in which impediments to the flow of goods, produce a flow of productive factors.

of productions in the country would be diminished by so much. Either of these suppositions is erroneous. . . . If prevented from exporting this surplus it would cease to produce it, and would no longer import anything, being unable to give an equivalent; but the labour and capital which had been employed in producing with a view to exportation would find employment in producing those desirable objects brought from abroad; or . . . substitutes for them. . . . And capital would just as much be replaced, with the ordinary profit from the returns, as it was when employed in producing for the foreign market." [1]

It is to be doubted whether Mill to-day, or indeed the Mill of his later years, the writer of the chapter on the "Tendency of Profits to a Minimum," would care to stand by this passage in reference to England. There is no mention of an alternative in capital and labour outflow, although the Mill of the later chapter, not then concerned with Ricardo's theory of international trade, was quick to see that possibility and to assess its relation to England's economic development. England provides us to-day with the best illustration of the ultimate logical effects of international trade upon national economic organisation. Through specialisation in production for world markets, fostered by export of capital and labour from early colonial times down to the late war, and by a free trade policy, she has been able to concentrate capital and labour on a small amount of land in "increasing return" industries, and to buy the products of "increasing cost" industries from abroad. By such specialisation she has achieved, of course, enormous advantages of territorial division of labour; but in so doing she has no less clearly committed herself to a particular organisation of her productive effort. International trade is her *raison d'être.* If cut off from foreign markets, it is difficult to see how "the labour and capital which had been employed in producing with a view to exportation would find employment in producing those desirable objects which were previously brought from abroad," and this without loss of capital or profits. What Mill overlooked was the entire absence, under assumptions of predominant foreign trade, of comparable alternatives in purely domestic production; for by the very fact of specialisation for foreign trade such alternatives could not logically exist. He failed to see, indeed, that but for specialisation in world trade such concentration of labour and capital on little land would not be possible. What is more significant, perhaps, he failed to see the relation of international trade to

[1] Mill, *Principles*, Book III, Chap. xvii. pp. 579–80. Ashley ed.

national economic development, spread over time. For him the problem was one of cross-section value analysis upon particular assumptions about mobility of factors. He failed to see that England's capital and labour were *products* (results) of international trade itself, but for which they would not have existed in any comparable degree. Having been created by international trade they stand committed to it, the only alternatives being, (1) a shift from some lines of international trade to others, (2) an international migration of productive factors, and (3) as a temporary stop-gap, support from the public revenues. Looked at from this standpoint, Mill's principle appears less true and more naïve than "the surviving relic of the Mercantile Theory."

II

The classical theory of international trade dates from the first half of the nineteenth century. Since some modern economists recognise the relativity of economic doctrines to the circumstances of their times, the theory of international trade is sometimes referred to (though surprisingly little such comment has come from specialists in the literature of the subject) as sound for its time, sound in its fundamentals even yet, but in need perhaps of some modification with the changing conditions of the world. To my own mind the main assumptions of the theory bear little evidence of careful observation of the current and antecedent phenomena of the times out of which the theory emerged. This fact should appear from a brief survey of the earlier history of English foreign trade.

In the Middle Ages and the early Modern period, international trade was peculiarly associated with progress. Communication was easiest by water, and this fact found expression in the rise successively of the Italian city states, the Hanseatic League, Portugal, Spain and Holland. Progress in industrial technique and market organisation was greater in international trade industries than in the purely domestic.[1] The trade involved, too, a considerable international diffusion of capital and enterprise, at a time when internal mobility was slight indeed. Thus the merchants of the Italian city states and the Hanseatic League

[1] "If the putting-out system appeared in England on any considerable scale only in modern times, this was because of the relative backwardness of that country. A similar form of organisation had been common in the mediæval towns of the Low Countries and Italy which manufactured for export." M. M. Knight, "Recent Literature on the Origins of Modern Capitalism," *Quarterly Journal of Economics*, May 1927, p. 524.

spread their capital, and themselves resided, throughout Western Europe and the Levant. The League merchants promoted agriculture in Poland, sheep-rearing in England, iron production in Sweden, and general industry in Belgium.[1] On the decline of the League its capital and its merchants emigrated to England and Holland. Adam Smith observed this fact, recognised the relation between international trade and capital migration, and in that connection made his famous remark about the mobility of merchants: "A merchant, it has been said, very properly, is not necessarily the citizen of any particular country. It is, in a great measure, indifferent to him from what place he carries on his trade, and a very trifling disgust will make him remove his capital, and together with it all the industry which it supports, from one country to another."[2] It was partly by reason of this instability of mercantile and industrial capital that Smith, who was a nationalist of nationalists, objected to the encouragement of international trade and industries dependent thereon; in a "natural" order capital would go first into agriculture at home and become planted in the soil: "No part of it (capital) can be said to belong to any particular country till it has been spread as it were over the face of the country, either in buildings or in the lasting improvements of lands. No vestige now remains of the vast wealth said to have been possessed by the greater part of the Hanse towns."

International trade prior to the nineteenth century strikingly displays a movement of the factors of production underlying, requisite to and proceeding out of the anticipation of profits to be made by international extension of markets and raw material resources. There was general recognition among writers and statesmen, including Adam Smith, that the same profits motivation which moved goods could move also the labour and capital requisite to produce them effectively. The Whigs in the eighteenth century, like the Manchester School in the nineteenth, were inclined to disparage the movement. Like the distant trade of the East India Company, the American trade seemed to divert labour and capital that could be usefully employed on English soil, without conferring any compensating advantage. This objection was stated and effectively answered by William Penn[3] and others who dilated on the superior advantages to capital and labour in the New World and the benefits to England of their transfer. The slave trade found favour with many because it

[1] List, *National System of Political Economy*, Book I, Chap. ii. p. 100.

[2] *Wealth of Nations*, Book III, Chap. iv.

[3] *The Benefit of Plantations*, in *Select Tracts relating to Colonies* (Brit. Mus., 1029, e.16).

would prevent the draining off of Englishmen and lessen the danger of establishment of competitive industry.[1]

In this field, as always, Adam Smith was a close observer of facts. Though in his view home employment is nationally more advantageous than foreign, and in a "natural" order capital and labour will go first into home industry—capital export, equally with goods export, being in the nature of a surplus—he is careful at all times to say that domestic application of factors will be preferred only on "equal or nearly equal profits." If under natural conditions (*i.e.* in the absence of special monopolies) the rate of profits were higher in foreign (colonial) trade, that would indicate the trade was understocked, productive factors would flow into it, costs of foreign goods would fall, to the benefit of home production and consumption, English exports would increase, and in this way the domestic application of labour and capital would be increased.[2]

Mill was struck with the significance of the same set of facts as Smith observed in the colonial trade: "There is a class of trading and exporting communities on which a few words of explanation seem to be required. These are hardly to be looked on as countries, carrying on an exchange of commodities with other countries, but more properly as outlying agricultural or manufacturing establishments belonging to a larger community. Our West India colonies, for example, cannot be regarded as countries with a productive capital of their own. If Manchester, instead of being where it is, were a rock in the North Sea (its present industry continuing) it would still be but a town of England, not a country trading with England; it would be merely, as now, a place where England finds it convenient to carry on her cotton manufacture. The West Indies, in like

[1] The slave trade was, of course, quite literally international trade in men, an exchange of men for goods; the migration of free men and of capital was an essentially similar process based on essentially similar motivation. Present and prospective profits from trade did not buy free men and translate them into the production which created the profits, but it offered prospect of high wages and return to capital and induced their movement.

[2] Nicholson cites Smith's recognition of the international mobility of capital as one of his significant "lost ideas": "In what may be called the pure theory of foreign trade it is assumed that between different economic nations there is no mobility of capital or that the mobility is so imperfect that for theory it may be neglected. Adam Smith, on the other hand, held the view confirmed by experience (and it may be said in harmony with the 'modern' principle of continuity) that foreign trade can only be carried on by sending a certain amount of capital out of the country. . . . These lost ideas have again been forced on the public attention by two significant facts: first, the enormous investments of British capital in foreign states; and secondly, the increasing tendency in recent years in the commercial policy of other nations towards the protection of native industries." J. S. Nicholson, *A Project of Empire*, p. xiii.

manner, are the place where England finds it convenient to carry on the production of sugar, coffee and a few other tropical commodities. All the capital employed is English capital; almost all the industry is carried on for English uses. . . . The trade with the West Indies is therefore hardly to be considered as external trade, but more resembles the traffic between town and country, and is amenable to the principles of the home trade. The rate of profit in the colonies will be regulated by English profits: the expectation of profit must be about the same as in England, with the addition of compensation for the disadvantages attending the more distant and hazardous employment; and after allowance is made for those disadvantages, the value and price of West India produce in the English market must be regulated . . . like that on any English commodity, by the cost of production." [1]

In attempting to ascertain the precise range of application of this suggestion of Mill's, so strikingly in contrast with his general theory of international trade, I find it a matter of the utmost difficulty where to draw the line. Though he mentions several peculiarities of the case of these colonies, the decisive ones, clearly, are that England finds it convenient to produce certain goods there (as is indeed true of all international trade), and that this convenience actuates the movement of English productive factors, tending to produce an equality of profit "after allowance is made for the disadvantages" of distance and risks. This applies certainly to very much of English trade in the nineteenth century. On these precise principles, England has found it convenient to produce wheat and meat (and for that purpose to export capital) in Argentina, gold and wool in Australia, minerals and food products in Africa, raw materials and foods in the United States and Canada through the greater part of their history; nor was her nineteenth-century trade with Western Europe devoid of these same characteristics, though there the goods trade and the movement of capital were not so directly and obviously linked together. Once again we find the suggestion that the same profits motivation that moves goods tends to move factors of production, and that foreign trade tends to produce an extension of productive factors over the expanding market area. It is true that this applies with special force to the development phase of international trade, and particularly to trade between unequally developed areas; but how much of foreign trade, first and last, escapes from these limitations? It is one question whether, under conditions of an approximately

[1] *Principles*, Book III, Chap. xxv. § 5, pp. 685–6.

uniform development of nations, the factors do not move more freely within than between them, and whether (which is a different and a more important question) we cannot for purposes of value theory abstract in our analysis of goods trade from the movements of factors which do in fact occur under these conditions. But given a lack of uniform development, an uneven world apportionment of capital and labour and managerial skill to land and to economic potentialities, and given an uneven development of communication, external and internal, the traditional "obstacles" to movement must be measured against the "pull" of economic incentive if our interest in foreign trade is to discover and assess what really happens, rather than what ought to happen under particular assumptions. And the negative fact that even under these conditions incomes are not made uniform internationally is not a sufficient excuse for avoidance of a more positive analysis than the economists have given us of the economic effects of the enormous and increasing drift of capital and labour over the world's surface.

To understand the industrial revolution a sense of continuity is indispensable. While it is never possible to ascribe complex economic changes to simple or single causes, it is increasingly the view of the historians that the industrial revolution was primarily a phenomenon of expanding markets. There followed a geographical and social, as well as an industrial, transformation of internal productive effort. Industries moved to new sites, employers cried out against old legal and customary restraints, while labourers sought to resist change and movement by invoking them, and economists (particularly the lesser lights, outdoing as always the creative thinkers) set forth as infallible and universal economic law new doctrines of economic liberty which were, like all the other changes mentioned, the product of the times and circumstances. For us, the theoretical question raised is as to the adequacy of a method of analysis which, taking a cross-section view in that moment of time, to fit those conditions so created, assumes as a first fact national entities, economically organised, internally mobile and coherent, and then attempts to study contacts between them on the assumption that international mobility of factors is so imperfect that for value purposes it may be ignored. British economic development to their time, including the domestic economic organisation which they were analysing, seems to suggest that the economists' foreign trade assumptions ignored organic elements of the problem.

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RICARDO ON MALTHUS

Notes on Malthus' "Principles of Political Economy." By DAVID RICARDO. Edited with an introduction and notes by JACOB H. HOLLANDER and T. E. GREGORY. (Johns Hopkins Press, Baltimore, and Humphrey Milford, Oxford University Press, London. 1928. pp. 364. 8vo. Cloth, 22*s.* 6*d.*)

RICARDO's grasp of an argument is so strong that every available writing of his will be read by admirers at least once, and, if the Notes recovered by Prof. Hollander in 1919 had not been published, there would have been a general regret for a possible loss. We have not so many minor writings of the economic fathers that we can say, as Hegel of Chrysippus, "Thank heaven they have not survived." The Notes of Malthus on Adam Smith are probably those of the Inverarity lectures in the Marshall library at Cambridge. There may be correspondence between Ricardo and James Mill, a *desideratum* of Prof. Hollander (Introd. to present vol. x). The Notes of Ricardo on J. B. Say (Ric. to M., p. 178) are still missing. The Notes of Ricardo on Malthus are now before us in the present book.

The title in Ricardo's clear hand is lithographed for us at the beginning of Prof. Gregory's portion of the book: "Notes on Mr. Malthus' work, 'Principles of Political Economy, considered with a view to their practical application.' By David Ricardo."

Text and commentary are both of 1820. The manuscript of the Notes seems to have been within reach of J. R. MacCulloch in 1846 when he brought Ricardo's Works together into a book (see his Preface there), but it was not included; and the Notes fell out of memory (Introd., x), with most things Ricardian, until what Ashley pleasantly called the "rehabilitation of Ricardo," forty years afterwards. There is a sign of intended publication in the phrase, "I fear I am wearying *the reader*" (Notes, p. 204; cf. Introd., xciv).

Gibbon says of one of his most admired authorities that "his patience and sureness of foot can be trusted to find the way on the most slippery heights." The like praise must be given to the two editors of this book. It was difficult to cover the ground without "cumbering" it. Ricardo could not have fallen into better hands.

There was to have been a close partnership, in which the two professors were to have laboured in both sections together. The ocean foiled that excellent plan. We now have, instead of it, (1) an Introduction by Prof. Hollander, giving (*a*) the genesis of the Notes and (*b*) the development of Ricardo's speculations carried on in face of his friend's criticism (i to cvi).

We have (2) the Notes themselves, with concise summaries, by Prof. Gregory, of the Malthusian text so annotated. The summaries are a great boon, for the Notes assume a knowledge of the text, quoting only enough for identification of the annotated passages. "I have made notes," Ricardo writes to Malthus, "on every passage in your book which I dispute, and have supposed myself about publishing a new edition of your work, and at liberty to mark the passage with reference to a note at the bottom of the page. I have, in fact, quoted three or four words of a sentence, noting the page, and then added my comment" (Introd., xvi; cf. xv). The analysis made in the Introduction is full; but the reader who contents himself with it will miss sidelights on character and happy feats of expression. Even more than the Introduction, the Text of the Notes alongside of the Summaries brings out the different intellectual bent of the two men. Because Malthus knew that both were sincerely seeking the truth, he wrote pathetically on Ricardo's death: "I cannot but think we sooner or later must have agreed" (Ric. to M., p. 240). The personal equation cannot be completely conquered even by love of truth. It would rather appear that, in studies not admitting demonstration, truth is helped forward by something like the party-system in politics, differences bringing thorough discussion and examination (cf. Introd., xi, top). There was in this case just enough agreement on general principles to make discussion profitable. The whole of the "Notes" are one long illustration of the divergence against which both struggled, and struggled in vain. The successive steps of it are excellently brought out in the Introduction. For example, we hear (xxxxvi) that, though Ricardo sucked no small advantage from Malthus on Rent (1815) and the Observations on the Corn Laws (1814), he was not content to receive a new idea, but was moved to fit it into a new economic system, which he proceeded to construct for himself, going on all the time farther and farther away from his friend. Witness his appeal to Malthus (1816): "I wish much to see a regular and connected statement of your opinions on what I deem the most difficult and perhaps the most important topic of political economy, namely, the progress of a

country in wealth and the laws by which the increasing produce is distributed" (Introd., xxxvii). The appeal may possibly have suggested the last chapter of Malthus' *Political Economy*, 1820, on the Immediate Causes of the Progress of Wealth. It certainly produced no agreement. To Malthus high rents remained the sign and symptom of a progressive society, to Ricardo high profits (xxxix). We can detect reservations; they would need to be very large reservations indeed before we could accept either view in our own day.

A few years afterwards (1823) "the most difficult question in Political Economy" is not Progress or its laws, but the Measure of Value (Ric. to M., p. 230). There is no great inconsistency. Like the squaring of the circle, the discovery of the Measure of Value might be the hardest problem without being "the most important." Prof. Hollander gives an adequate and therefore not a long consideration to it (xxii–xxxiv). Malthus, after taking a mean between corn and labour as his measure, came back to Adam Smith's measure, "labour commanded." Ricardo resisted the temptations of MacCulloch and would not take labour expended (or cost in labour), towards which he had seemed to be drifting; he declared himself content with gold as a tolerable practical measure (xxxii). In his Economical and Secure Currency (Sect. II. 400, McC.'s ed.) he pushed aside what is now called an index-number and is our nearest approach to a Measure of Value. Statistically, though attempts had been made by Shuckburgh-Evelyn and Wheatley, the times were not ripe for it.

There is a masterly account of the controversy on Rent (xxxv–lxvii), in which Prof. Hollander usefully incorporates the substance of an earlier investigation of his own.[1] Of the three chief differences between the two men, the first is in regard to Marginal Rent: "As long as land of the next poorer quality to the poorest in use is freely available, there will be an extensive margin or no-rent *land*, and an intensive margin or a no-rent *use* of land" (l). "Differential costs in extensive cultivation, diminishing returns in intensive," was becoming the accepted formula.

It was argued by J. B. Say that the so-called no-rent margin of agricultural land really paid rent—rent for the uses other than agricultural. He was hard to convince (li) that there was such a thing as intensive use "with a marginal increment of product

[1] *Quarterly Journal of Economics*, Vol. ix, 1895, pp. 175 *seq.*: The concept of Marginal Rent.

derived entirely from no-rent uses of land"; that the repeated "doses," in James Mill's phrase, would be applied beyond the point where they paid rent. Malthus already adopted Say's contention (liii) on the ground that "uncultivated land" in a civilised country "always yields a rent in proportion to its natural power of feeding cattle or growing wood."[1] John Mill wrote later (*Pol. Econ.*, iii, vi, quoted in the *Quarterly* article on Marginal Rent, p. 176): "When land capable of yielding rent in agriculture is applied to some other purpose, the rent which it would have yielded is an element in the cost of production of the commodity which it is employed to produce"; and Jevons even counts this the normal case (*Pol. Econ.*, 2nd ed., Pref., xlvii–xlviii, quoted *ib.*). Malthus for his part in 1820 had given himself away: "It will always answer to any farmer who can command capital to lay it out on his land, if the additional produce resulting from it will fully repay the profits of the stock, although it yields nothing to his landlord" (p. 82). Ricardo quotes this in full, and adds with a ring of triumph: "There may then be some additional produce which yields no rent to the landlord" (p. 82). What need we any further witness!

The second chief dispute concerned agricultural improvements. Ricardo had contrasted his general attitude with his friend's in a letter of 1817 (quoted Introd., lxxxviii): "You always have in mind the immediate effects; I fix my whole attention on the permanent state of things which will result from them." But here, as Malthus complains in his book of 1820, it was Ricardo who laid stress on the immediate effect of the improvements, namely, a tendency to lower rents. In the long run, both agreed, the improvements create a chain of tendencies leading to a rise of rents (lv,[2] lviii, lix). Malthus, more favouring the landlords, rejoices in the eventual increase. Ricardo protests that he must not be set down as an enemy of the landlords (lvii). He had pointed out their plight; it was the common lot of man. "Great improvements in any branch of production are in their first effects injurious to the class who are engaged in that branch" (Notes, p. 51). It is the idea developed at large by Philip Wicksteed (*Common Sense*, 1910, pp. 351–4). "Because it is my social function to supply the world as well as I can with a certain thing, I dread the world's being so well supplied with it that I shall be able to get little or nothing for supplying more." (*l.c.*, p. 351.)

[1] For other references to "various uses" see l, lii, 30, 32, 83, 85, 182.

[2] There seems to be an accidental transposition of names near the foot of p. lv, reversing the rôles of the two men.

This touches the third of the really serious differences in regard to the landlords and rents. Malthus had tried to show that the interest of the landlords was that of the whole State; but, to Ricardo, their interest, being sometimes for scarcity and against improvements, was "opposed to that of the consumer and manufacturer" (lx). The English landlords wanted to furnish our whole supply, while it might be our interest to use "other machines," get our food more cheaply, and have the more to spend on other things (lxiv).

After the theory of Rent comes the theory of Wages and Profits, discussed at much less length (lxvii–lxxv). What hindered agreement was in some degree Ricardo's use of old terms in a new sense; natural price is "what is necessary to supply constantly a given demand" (lxix); high wages are a high *proportion* of the produce as compared with the employer's proportion; high profits likewise, *mutatis mutandis* (cf. lxi). "Profits, in fact, depend on high or low wages and on nothing else" (lxxiii); always in this special sense of "high" and "low." So Ricardo (lxxviii, xciv), with Say and James Mill, uses Distribution in what is now the common acceptation among economists, allotment among producers of their several shares in the product; Malthus clings to the older and looser sense of sharing amongst consumers generally. Neither Malthus nor Ricardo is blind to the rising standard of living; but Malthus lays the greater stress on it. "Even when wages are high, different results may follow —a rapid increase of population *or* a decided improvement of the mode of living" (lxvii).

Incidentally we hear of the influence of John Barton's "Labouring Classes" (1817), Ricardo learning its lesson later than Malthus but more effectively (lxx). Malthus was actually more on the *side* of orthodoxy, if orthodoxy means the views of J. R. MacCulloch, whereas Ricardo writes: "If capital is realised in machinery there will be little demand for an increased quantity of labour." [1] Ricardo's theory is summed up by Prof. Hollander as follows (lxxi): "In a progressive society the increase of income and the foregoing of expenditure result in the accumulation of capital. Such accumulation creates new demands for labour. The growth of population is thereby stimulated and the additional food requirement compels the cultivation or improvement of inferior lands. Profits will fall not only because of the increase in wages but, more important, because more labourers will be employed without affording a proportionate return of raw produce."

[1] For his later, more pronounced view, see R. to M., p. 184.

This is a good concise statement of the situation in 1820, hardly conceivable to Englishmen of 1929, when British agriculture has little or no effect on general wages, and when the elasticity of the market of labour has given place to the rigidity of trades union rates. At that time we were told that to be arbiters of their own destiny the workers must keep the market understocked with labour (lxxiv). At present, 1929, we have over a million unemployed without any reduction in the trade union rates of those already employed.

Malthus did not prophesy these things, nor did Ricardo. But Prof. Hollander observes that Malthus foresaw "an increase in the rate of profits in this country for twenty years together, *at the beginning of the twentieth century*, compared with the twenty years which are now coming on [1820–40], provided this near period were a period of profound tranquillity and peace and abundant capital, and the future period were a period in which capital was scanty in proportion to the demand for it *owing to a war*, attended by the circumstances of an increasing trade and an increasing demand for agricultural produce similar to those which was experienced from 1793 to 1813" (*Pol. Econ.*, p. 325, "Notes," lxxiv, 150). This evokes from Ricardo a note worth giving in full: "What a number of conditions! The only one of importance is the abundance or scarcity of capital compared with the demand for it, which is saying in other words that, if in the beginning of the twentieth century the comparative quantity of capital and labour should be such that the labourers should not be able to command so large a proportion of the produce obtained on the last land, profits will then be higher On these conditions there is no denying the conclusion. Whether they will be so or not must depend on improvements in agriculture—or on the permission by law to import corn without restrictions from other countries" (p. 150).

"Perhaps the most *successful* prophecy in the whole body of the classic economic literature," writes Prof. Hollander (lxxiv) of that forecast of Malthus. Malthus has also uttered one of the most grievously mistaken prophecies on record (Hollander, p. xcvii), namely, the ruin of France from the compulsory division of property. Ricardo's withers were unwrung: "I cannot participate with Mr. Malthus in his fears for the duration of a free government under such a system" (xcix, 211, in reference to *Pol. Econ.*, pp. 433–4).

Confronted in England with agricultural distress and unprofitable farming, Ricardo found the farmer's plight due to

"bumper crops," and his decline of profits normal and inevitable (lxxv; cf. civ, cvi); Malthus found it unnecessary and remediable. Cobbett and Western blamed the currency, "dear money." Malthus, allowing that dear currency had injured agriculture (civ), thought that there was a remedy if we could increase the produce and the value of it together (lxxvii–viii), the demand being as essential as the supply, and if to that end we could always keep up a body of unproductive consumers to take off the produce. Ricardo considered that the demand could be taken for granted over the whole field, and agreed with James Mill and Say (whichever comes first) that production creates its own market (lxxxii); there could be bad adaptation of supply to demand in particular cases, but no universal glut. Ricardo, fond of superlatives, thinks the doctrine of Malthus about gluts "the most important topic in his book" (lxxxv).

The subject is worn threadbare; and it is enough to say, first, that Prof. Hollander traces the history of the theory with patient lucidity; secondly, that recent discussions on the Unemployed have shown that there is still a use for the weapon wielded by James Mill and Say, and Ricardo after them; thirdly, that the same necessity of equivalents figured and still figures in discussions on foreign trade. "Extension of the market and free trade are two names for the same thing," says Ricardo; "abundance of commodities can never be otherwise than beneficial." To Malthus these are "disastrous presents" unless accompanied with demand (xci).

Foreign trade is discussed, from various angles, in the Introduction (xcix–cvi). Malthus thought it added to values and benefited chiefly the capitalist. Ricardo, in his own *Political Economy and Taxation* (quoted Introd., c) says: "No extension of foreign trade will immediately increase the amount of value in a country, although it will very powerfully contribute to increase the mass of commodities, and therefore the sum of enjoyments." The chief benefit is not the capitalist's but the consumer's (ci).

Here comes in the old difference between "long run" and short view, where the opponents may be substantially at one; but there remains the question of unproductive consumers—are they a blessing or not? On this question no agreement was possible. Malthus thinks the body of unproductive consumers should vary in different countries and at different times according to powers of production (cvii; cf. 132)—perhaps an obscure anticipation of an "*optimum*." If a sponge could be applied to the National Debt, the nation, "instead of being enriched, would be

impoverished" because of a shrinking in demand and consumption (cix). Peace had brought distress because of "the diminution of the whole amount of consumption and demand." England and America "suffered the least by the War, or rather were enriched by it, and they are now suffering the most by the Peace," wrote Malthus in 1820 (*Pol. Econ.*, p. 501), and he explains the phenomenon by the less taxation and greater saving occurring in those two countries in consequence of the Peace.[1]

Ricardo is lively in reply. "A body of unproductive labourers[2] are just as necessary and as useful with a view to future production as a fire which should consume, in the manufacturer's warehouse, the goods which those unproductive labourers would otherwise consume" (p. 233; cf. p. 235). "Mr. Malthus never appears to remember that to save is to spend as surely as what he exclusively calls spending" (cxi).

The Notes deal little with Taxation, Malthus having dealt with it little, an omission (it may be remarked) not supplied in his second edition, 1836.

They conclude (p. 246) with a mention of the good effects of Redemption of Debt. "After the annihilation of the debt we should have no more capital or revenue than before; it would only be differently distributed. Inasmuch as the payment of the debt would relieve us from a great load of taxation, it would diminish the temptation to remove capital from this country to others not so burthened. It would relieve us from the army of tax-gatherers, revenue officers, and smugglers who are now supported out of the industry of the country, and which aggravates the evil of the taxes. Many other collateral benefits would result which it would not be expedient now to enumerate."

This is his last word in the Notes. The Essay on the Funding System written in the same year, 1820, for the *Encycl. Brit.* contains a passage directed against (*a*) those who oppose redemption on the ground that it would cause a general glut (Ric., *Works*, ed. MacC., new ed., 1876, p. 534), and (*b*) those who, contrariwise, think it would create a demand beyond possible supply (*ib.* pp. 535–6). As is well known, Ricardo was so eager for redemption that he was prepared for a Capital Levy (*ib.*, p. 539).[3]

Great and small, we have all committed misprints. The great Ricardo committed one in the "Funding System," to be negligently

[1] In the Introd., cix, line 3rd from foot, "least" and "most" have changed places.

[2] Malthus says "consumers" (*Pol. Econ.*, p. 463) and Ricardo adopts the phrase in Notes, p. 235.

[3] See letter to Heathfield in R. to Trower, pp. 96–100.

followed by MacCulloch (see Trower, p. 97, note); the great Malthus carried one through all editions of his Essay (see reprint of First Essay, Notes, p. xxvii). There are not a few in the present book, for which (beyond the irreducible minimum allowed to all authors) we must blame the Ocean.[1]

J. BONAR

[1] For misprints (besides the two already recorded *supra*) see Introd., xxv, xxx, xliv, lii, lxxxv, xc, cxvi. Notes, 42, 43, 47, 52, 63, 86, 99, 104, 106, 145, 154, 158, 168, 175, 229.

SMALL FARMS IN NORTHERN IRELAND

1. The question of the best economic and social unit for agricultural production has received a considerable measure of attention in recent years, and the claims of the small farm have been advocated strongly. There is, however, comparatively little information available regarding the economic position of small farms in Great Britain and, in consequence, the experience of continental countries has received a great deal of study from British economists. The following examination of the position of small farms in Northern Ireland, as revealed by the Census of Agricultural Production of 1925, may therefore be of interest.

2. The total area of Northern Ireland is 3,351,444 acres, or more than half a million acres less than the area of Yorkshire. Of this area slightly over 2,460,000 acres were cultivated land under crops and grass in 1925. In that year Northern Ireland contained over 104,000 separate agricultural holdings exceeding one acre in size, or rather more than a quarter of the total number in England and Wales, and a third more than in the whole of Scotland. It is obvious, therefore, that the average size of farms must be small—averaging only 23½ acres of crops and grass per farm as compared with over 63 acres in England and Wales and over 61 acres in Scotland. Less than 15 per cent. of the agricultural area of Northern Ireland is on farms over 100 acres in area, whereas in England and Wales two-thirds of the area under crops and grass and in Scotland 70 per cent. of the area under crops and grass is on farms above 100 acres in size. These figures are all the more remarkable when it is remembered that in Northern Ireland all the land on the farm—turf bog, marsh, mountain, woods and plantations and all classes of waste land, as well as the area used in agricultural production—is taken into account in arriving at the size of the holding. In Great Britain, on the other hand, only the area under crops and permanent grass is taken into account in the statistics of the number and size of holdings. In Denmark in 1919, no less than 19·8 per cent. of the area of farm land (cultivated and uncultivated) was on holdings above 150 acres in size, so that the preponderance of small holdings is even greater in Northern Ireland than in Denmark.

3. The value of the gross output of agriculture in Northern Ireland in 1925 is estimated at £15,072,515 and the value of the

net output at £11,185,000.[1] The latter sum represents the gross output less the expenditure of farmers on imported or manufactured animal feeding stuffs (£3,100,000), fertilisers (£400,000), agricultural seeds (£275,000) and the cost of scutching flax (£113,000). The net output represents the sum available for the payment of rent, rates, wages and taxes as well as profit to the farmer. In the following paragraphs an attempt is made to estimate the distribution of the net output among the different agents of production.

Rent Charge.—The majority of the farmers of Northern Ireland are either owners or well on the way to becoming owners of their farms through the operation of the various Land Purchase Acts. On the 31st December, 1925, almost one million nine hundred thousand acres had been bought out under the various Land Acts, with a total purchase price of £21,245,358, of which £20,880,093 was advanced by the State.[2] In 1925 the annuities paid in respect of Land Purchase advances under these Acts (1870 to 1909) totalled £636,085.[3] A certain part of this payment represented a sinking fund in order to wipe out the advance made by the State, and the actual sum paid in interest was probably around 520-525 thousand pounds. This sum is too small however, by (1) the rental paid by unbought tenants and (2) the value of the rental of lands which are owned by the occupier not subject to any annuity or charge.

A better idea of the rent charge upon the industry—whether in the form of an actual rent paid to a superior or a land purchase annuity—can probably be obtained by taking the fair rents which

[1] *The Agricultural Output of Northern Ireland*, 1925, Belfast, 1928, Cmd. 87. The value of the gross output per acre in Northern Ireland in 1925 was about £6 3*s*. as compared with about £8 15*s*. per acre in England and Wales. It is necessary to remember, however, that the gross output of the live stock industry in England and Wales includes the value of animals which have been imported from Ireland in shore condition, but fattened and finished for the butcher by English graziers. Further, the level of agricultural prices in Northern Ireland in 1925 was in many cases lower than in England and Wales. The following table compares the prices at which certain important crops and live stock products were valued in the two countries in the census year:

Commodity.	N. Ireland.	England and Wales
Potatoes .	53*s*. 4*d*. per ton	92*s*. per ton
Whole Milk.	1*s*. per gallon	1*s*. 1⅛*d*. per gallon
Butter .	1*s*. 5*d*. per lb.	1*s*. 9¾*d*. per lb.
Hen eggs .	15*s*. 7½*d*. per 120	17*s*. 6*d*. per 120

[2] *Ulster Year Book*, 1926, p. 18. [3] *Idem*, p. 63.

were fixed by the Irish Land Commission. Under an Act of 1881, a tenant or landlord in Ireland could apply to the County Court or to the Land Commission (generally the latter) to fix a judicial rent for the holding, or the parties could agree on a rent and apply to have the agreement filed. The rents so fixed remained payable for a statutory term of fifteen years, after which either party could apply to have a judicial rent fixed for a further statutory term and so on every fifteen years.

Judicial rents were fixed in respect of no less than 107,809 holdings with an acreage of 2,323,690 acres.[1] It seems broadly true to say that judicial rents were fixed in respect of practically the whole agricultural area of the country. The first-term judicial rent fixed in respect of this total area was £1,339,845. Only 1,181,413 acres of land had second-term rents fixed, but by the time the original period of fifteen years had expired many farms had been dealt with under one or other of the Land Purchase Acts. The second-term rents fixed by the Land Court showed an average reduction of 22·7 per cent. below the first-term rent. It is probable that all things taken into consideration somewhat similar reductions were obtained by tenants who bought out their farms, so that this percentage reduction may be applied to the whole £1,340,000 fixed by the Land Commission as first-term fair rents. The result is to give a figure of approximately £1,040,000 to represent the payment made by Ulster farmers in respect of the "rent" of their lands. It will be appreciated that this payment may be made either in the form of a land annuity or of an actual money rent to a landlord.

The rent payment of Ulster farmers differs very appreciably from the rent payment of farmers in England and Wales. A mere examination of the relative proportions of the gross output of the farming industry in the two countries which is assigned to rent is sufficient to reveal the wide difference between "rent" in the two countries. On the calculation above approximately 7 per cent. of the gross output of the Northern Ireland agricultural industry is paid in rent as compared with 19 per cent. in England and Wales.[2] But in England and Wales the landlord has sunk a great deal of capital in the improvement of the farm and in the erection of buildings. In Northern Ireland, on the other hand, the buildings and improvements have been made by the tenant, and the rent paid is virtually economic rent for the land itself.

Wages.—The total number of male hired labourers employed

[1] *Ulster Year Book*, p. 17.
[2] See *The Agricultural Output of England and Wales*, 1925, Cmd. 2815, p. 115.

in agriculture in Northern Ireland in 1925 was 37,951, of whom 13,293 were returned as casual labourers. Assuming that the latter were employed on the average for six months in the year, the total cost of farm wages (including allowances) would be approximately £2,030,000 at an average rate [1] of 26*s*. per week for adult workers and 15*s*. per week for boys under eighteen. This estimate excludes the wages of hired female labourers, of whom the numbers in 1925 were 4,530 permanent and 1,698 casual. It is probable, however, that many of these women labourers are partly engaged in domestic duties. They are, indeed, in much the same position as female members of farmers' families, who in addition to the performance of household duties are frequently employed in milking, butter-making and, at some seasons of the year, work in the fields, in addition to having charge of the poultry of the farm.

Rates on Agricultural Land.—The next charge which has to be deducted from the value of the gross output is rates upon agricultural land.

The cost of the relief of rates on agricultural land in Northern Ireland under the Derating Scheme is estimated at £457,000.[2] This sum represents a charge of about 3 per cent. of the value of the gross output in 1925. It is of interest to compare this figure with that for England and Wales. In 1924–25 the estimated amount of rates collected on agricultural land in England and Wales is stated to have been £3,830,000,[3] or approximately 1·7 per cent. of the value of the gross output. It is apparent, therefore, that the burden of rates on agricultural land has been appreciably more onerous in Northern Ireland than in England and Wales.

The rateable valuation of farm buildings in Northern Ireland is not shown separately, but a relief of rates in respect of one-third of the combined valuation of the farm-house and buildings is estimated to cost £55,000.[4]

It has frequently been suggested that the valuation of agricul-

[1] In reply to a question in the Northern Ireland House of Commons on Thursday, 18th March, 1926, the Minister of Agriculture gave the following particulars of the average rate of agricultural wages in Northern Ireland in 1925: Ploughmen 28*s*. per week, Cattlemen 27*s*. 3*d*. per week, Ordinary Labourers 24*s*. 6*d*. per week. The numbers of labourers employed in June 1925 were returned as:

	Under 18.	Over 18.
Permanent	2,343	22,315
Casual	1,356	11,937

[2] *Report of the Inter-Departmental Committee on Rating Relief in Northern Ireland*, Belfast, 1928, Cmd. 89.

[3] *Hansard*, 194, 1408.

[4] *Report of the Inter-Departmental Committee on Rating Relief in Northern Ireland*, Belfast, 1928, Cmd. 89.

tural land in Ireland is on a lower basis than in England and Wales.[1] The fact that the valuation of farm land in Ireland was fixed by the Griffith Valuation which took place between 1852 and 1865 necessarily means that the rateable value has not varied with the annual letting value. It may, therefore, not be without interest to point out that in 1925 the percentage borne by the rateable valuation of agricultural land to the value of the gross output of the agricultural industry was almost exactly the same in Northern Ireland as in England and Wales. The gross output of agriculture in Northern Ireland in 1925 was £15,073,000 and the rateable valuation £1,850,000 or 12·3 per cent. In England and Wales the gross output was £225,330,000 and the rateable valuation £26,050,000, or 11·6 per cent.

Return to the Farmer.—After making deductions in respect of rent, wage and rate charges, a sum of about £7,600,000 is left, representing the remuneration of Northern Ireland farmers in respect of their labour and capital. This sum is equivalent to approximately £3 2*s.* per acre of cultivated land. It is, of course, obvious that this figure represents the average of results on many different classes of farms. There are farms of 30 acres from which the holder is obtaining a return of a great deal more than £93 in return for his investment of labour and capital. It is equally true that there are farms of this size from which the return derived by the farmer is considerably less than £93.

It is a matter of considerable conjecture to attempt to separate the reward of the Northern Ireland farmer between interest on the capital he has invested in his farm and remuneration for his labour and work of farm management.

The total number of farmers and male members of their families returned as engaged in farm work in 1925 was 108,858, of whom 11,307 were under eighteen years of age. A wage of 26*s.* per week to adult workers and 15*s.* a week to those under eighteen years of age would amount to £7,035,000, and a sum of a little over half a million is left to represent interest on farmers' capital. In view of the fact that the valuation of live-stock on farms in Northern Ireland in 1925 amounted to approximately £14,500,000, while the estimated value of the *principal* classes of implements on farms (on the basis of 50 per cent. of current prices) was about £3,000,000, it becomes apparent that this sum is insufficient to pay normal interest on the capital invested in live and dead stock and nothing is left to represent interest on the capital which has at some period or other been sunk in improvements and the erection of buildings. It must be remembered, however, that, unlike the

[1] See Sir J. C. Stamp, *British Incomes and Property*, Chapters I and IV.

investment of capital in live and dead stock, a great part of the capital sunk in buildings and improvements was made several decades ago when both prices and interest rates were low.

In discussing this result there are two factors which may be considered to have caused the average return per acre, and also the balance available as return on capital, to be unduly depressed:

(1) On small family farms there is a danger that the maintenance of members of the family for whom only part-time employment can be found is frequently made a charge against the farm income. Thus, the average number of workers per 100 acres of cultivated land in Northern Ireland in 1925 was 6 males and 2·6 females in comparison with a total of about 4·3 males and females in England and Wales. If more people are maintained on the farms of the Six Counties than would be the case under conditions of commercialised farming, the allowance in respect of the wages of farmers and members of their families working on the farms may have been unduly swollen and the residue for interest or capital abnormally reduced. As against this view, however, it may be pointed out that a considerable reduction in the number of land workers in Northern Ireland occurred between 1912 and 1925, as is shown below.

Number of Male Persons engaged in Farm Work

	1912.	1925.
Farmers and members of family . .	110,730	108,858
Permanent labourers	30,577	24,658
Casual labourers	23,801	13,293
Total	165,108	146,809

During this period there was also an increase from 39,878 to 57,325 in the number of female members of farmers' families returned as helping in the work of the farm. No wage allowance to these female workers has been made in the calculation above their work being treated as unpaid service analogous to the performance of household duties. The reduction in the number of hired labourers between 1912 and 1925 and the increase in female family labour suggests that the tendency is to utilise family labour to the full and to cut down costs by eliminating as far as possible the employment of outside labour.

(2) The area included in the agricultural statistics includes land attached to residential holdings which cannot be regarded as "farmed" in the usual sense. The number of such properties is relatively small in Northern Ireland as compared with England and Wales, and even if all land on holdings under ten acres in size is excluded, the sum available as remuneration to the farmer is

equivalent to only £3 6*s*. 6*d*. per acre. On the assumption that only in exceptional cases is an area of ten acres of land likely to afford whole-time employment to the occupier, farmers and members of their families returned on holdings under ten acres might be excluded from the calculation above. The numbers of family labourers would then be—adults 77,144, boys under eighteen, 8,978. The allowance of 26*s*. per week to each adult and 15*s*. to each boy would amount to approximately £5,565,000, leaving a surplus of about £2,035,000 as interest on capital.

An alternative method of approaching the question of the distribution of the net output is to regard the rateable valuation of the land as representing a fair letting value. It has been seen above that the ratio borne by the rateable valuation to the value of the gross output is almost the same in Northern Ireland as in Great Britain. In the case of buildings there has been little or no revaluation of rural property in recent years, and it is unquestioned that the existing valuation of farm buildings is extremely low. On the other hand, the valuations in force may be taken as, in the main, representing what was considered a fair return upon the capital invested in the buildings at the time of their erection. The following balance sheet can then be drawn up:

Net Output		£11,185,000
Valuation of agricultural land . . .	£1,850,000	
Valuation of farm houses and farm offices	400,000	
Wages of hired labourers. . . .	2,030,000	
Rates on land and farm offices. . .	512,000	4,792,000
Balance . . .		£6,393 000

This sum is insufficient to afford a labourer's wage to the total number of male members of farmers' households returned in the argicultural statistics as engaged in farm work, and leaves nothing for interest on tenants' capital invested in live and dead stock. On the other hand, if workers on holdings under ten acres are excluded, a balance of nearly £830,000 is left over, and is sufficient to defray 4½ per cent. interest on tenants' capital to the amount of about £7 10*s*. per acre. In view of what has been said previously regarding the tendency for small family farms to be called on to maintain an unduly large number of persons on the farm, the latter result may possibly be the most accurate. At the best, however, the average return obtained by small family farmers in Northern Ireland in 1925 appears to have been (1) a labourer's wage plus (2) interest on their capital. Even this result can only be shown by taking what is an admittedly abnormally low valuation for farm buildings.

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VALUATION THEORY AS APPLIED TO UNITED STATES RAILROADS

In the post-war resettlement of railway finances, Great Britain and the United States proceeded on very different lines. The former dealt with the question of standard revenue by an *ad hoc* rule (the 1913 base) which defied logic but saved a deal of trouble. The latter dealt in terms of general principle, and a tremendous mass of legal and economic theorising has resulted from which, at the end of eight years, accepted rules of procedure are only just beginning to crystallise. Most of this theorising turns upon the problem of valuation.

The Transportation Act of 1920 charged the Interstate Commerce Commission "to initiate, modify, establish or adjust" rates so that carriers will earn "an aggregate annual net operating income equal, as nearly as may be, to a fair return upon the aggregate value of the railway property used in the service of transportation." At first sight it might seem that "fair return" was the controversial element in this definition. Argument about that was, however, cut short by the Act naming a definite rate—5½ per cent., which the Commission might raise at discretion (as it has done) to 6 per cent. The British Act,[1] it will be remembered, followed the same method in respect of capital investment since 1913, though here the figure was 5 per cent. The rates, of course, represent carefully considered guesses at the figure that will suffice to attract free capital in sufficient quantity to the railroads. That empirical principle is for modern times the one surviving maxim of *laissez faire;* and unless the Government is to provide, or to underwrite, the capital itself, that principle must rule. "Fair return" cannot be specifically determined by any process of deductive reasoning: it is part of the data, not the conclusions, of economics, and reflects the general productivity of capital in the community concerned. There have been in the United States several public utility cases in which 6 per cent. has been held to be "confiscatory," and in some half-dozen of these 8 per cent. (usually on a higher valuation basis than the Commerce Commission's) has been sanctioned; but these do not constitute precedents for the railroads. It is of interest, however, to observe

[1] Railways Act 1921 (11 and 12 Geo. V, Ch. 55), Sec. 58.

in passing how the empirical rule keeps cropping up even in railroad cases that are being argued on the basis of valuation theory. For example, the decisive consideration in the fundamental *Smyth* v. *Ames* case (166 U.S. 466, 1898) was not the valuation theory advanced, but the plain dictum that the rates complained of would have resulted in loss to the company, or in earnings "too small to affect the general conclusion" as to confiscation. Similarly in the O'Fallon case, now under appeal, the district court remarks of a set of earnings calculated in a certain way to yield 4·35 per cent., that "such a return is obviously insufficient." Why "obviously"? Because the court, like everybody else, has at the back of its mind a rough conception, empirical rather than deductive, of what the road must earn if it is to carry on.

How impossible it is to escape, under any system, the need for such a concept, is illustrated by recent arguments in certain agricultural rate cases. Congress in 1926 passed the Hoch-Smith resolution directing the Commission to give to the agricultural commodities affected by depression "the lowest possible lawful rates compatible with the maintenance of adequate transportation service." The reference is theoretically, of course, to the principle of charging what the traffic will bear, especially in the matter of overhead; but in practice no exact allocation is possible. "Rates that we may lawfully require," said the Commission (American Livestock Assoc. 122 I.C.C. 609, 617), "must in principle be high enough to cover all the cost that may be fairly allocated to the service plus at least some margin of profit. . . . We say 'in principle' because only rarely is definite information available as to such cost, and in practice rates must often be fixed largely by comparison with other rates." In another case (Western Advance Rate Case 20 I.C.C. 307) the Commission states its difficulties still more frankly: "What is the reasonable rate that shall be charged to the shipper? The legislature may not make rates so as to confiscate the carrier's property. The carrier, on the other hand, may not make rates which are unjust on those who by economic necessity are compelled to employ its services. Here, then, we have the minimum of legislative power and the maximum of the carrier's power. Between these lies a zone indefinite and variable." In the fully argued California Growers and Shippers case of August 1927 the Commission therefore interpreted the Congressional resolution as meaning simply that it was to keep "as near the lowest limit or level of that zone as is compatible with the maintenance of adequate transportation service." Neither in the specific business of rate-fixing nor

in the general estimate of "fair return" is it possible to make an *a priori* exact economic determination of "reasonableness."

Having settled the question of a fair rate of return, the Transportation Act of 1920 goes on to dispose completely of a railroad's net earnings over and above the amount so indicated. One-half of the excess is to be held by the carrier as a reserve fund (until a total of 5 per cent. of the property valuation is accumulated), usable only to repair dividend or interest deficiencies up to 6 per cent. of previous years; the other half, by the famous "recapture clause," is payable to the Commerce Commission, which must place it to a revolving fund for the assistance, on a loan basis, of the weaker roads. This was a fairly tough camel for strict constitutionalists to swallow; but the feat was finally achieved in a test case of 1924,[1] on the theory that power to regulate includes power to construct, and therefore *a fortiori* covers entire affirmative control. The excess earnings might never have arisen but for the action of the regulating authority establishing rates which were reasonable for the roads as a whole; and, further, "the statute declares the carrier to be only a trustee for the excess over a fair return received by it. Though in its possession, the excess never becomes its property."

So that was settled; but one may surmise that economic reasons had their influence in determining this interpretation of the law. For the problem was the very pretty one of sharing out the differential gains of the more fortunate or stronger roads without resorting to actual unification. Under a system of uniformly prescribed rates, obviously some roads must reap a differential beyond what is merely "fair" for others. To keep the area of service wider than it would tend to be under free competition, this differential must in some way be pooled. The pooling could be secured, of course, under a system of unification based on ownership, either by private holding company procedure (as in the public utilities) or by nationalisation. The Commerce Commission is charged, in the 1920 Act, to "give due consideration, among other things, to the transportation needs of the country, and the necessity . . . of enlarging such facilities in order to provide the people of the United States with adequate transportation"; but it has to do this without recourse to either of the expedients just mentioned. The recapture clause is the answer. As the Court put it in the Dayton Goose Creek case, "the combination of uniform rates with the recapture clause is necessary to the better development of the country's transporta-

[1] *Dayton Goose Creek Railway* v. *U.S.*, 263 U.S. 456.

tion system. . . . The control of the excess profit due to the level of the whole body of rates is the heart of the plan." At present, however, the greater part of what has been paid in to the revolving fund, and practically all outstanding claims, are tied up in legal protest, pending the final disposition of the St. Louis and O'Fallon case by the Supreme Court.

A most important, and decidedly onerous ruling affecting rate of return has been established in two recent cases. In the Dayton Goose Creek case the question arose " whether the return is to be measured by the net revenue remaining after deducting both the amount to be paid over to the Government and the amount to be placed in the reserve fund, or is to be measured by the net revenue remaining after deducting only the amount to be paid over to the government." The court decided for the latter alternative; and in the St. Louis and O'Fallon case the Missouri District Court considered itself bound by this precedent, " whatever might be our independent view as to the inclusion of the reserve fund portion with the net revenue left unrestricted." In view of the prior ruling that the excess over 6 per cent. is merely a trust impressed upon the carrier, and " never becomes its property," this is a peculiar decision. Whether it will be applied in an upward as well as in a downward sense is not yet clear; but if it is not, and deficiencies of a given year are still to be made up from a "fair return" of 6 per cent. *including the reserve fund*, the effect, of course, will be to bring the actual average rate of return below 6 per cent.

As a matter of fact, the railroads as a whole have not earned 6 per cent., on either their own or the Government's valuation, for ten years; and their financial difficulties have been reflected in their inability to raise new capital by stock issues. The proportion of annual financing taking this form fell from 54·3 per cent. in 1917 to 3·4 per cent. in 1925: since then it has risen to about 35 per cent.—a figure still much too low. The burden of fixed charges resulting from excessive bond issues made even the flotation of bonds difficult, and trust certificates have been largely resorted to. But obviously the *laissez-faire* principle of capital supply is inescapable, short of running the system on the taxes. To grant, however—as on the whole we may—that a 6 per cent. return on the property is adequate for a railroad soundly financed, merely brings us up against the basic difficulty of capitalisation. This we must now examine.

The suspicion of over-capitalisation was the main factor behind the passing of the Valuation Act of 1913. That Act, in

turn, reaffirmed a principle laid down by J. Harlan in *Smyth* v. *Ames* and preceding cases—the principle of physical valuation as a basis for rate-making. In J. Harlan's almost classic phrase, "the basis of all calculations as to the reasonableness of rates must be the fair value of the property being used for the convenience of the public." This principle has been accepted as the only way out of the vicious circle that would be set up if a rate-making body accepted as its basis a valuation derived from the earnings it itself was to determine. The dilemma is clearly stated by the Commerce Commission in a recent report (Chicago Burlington & Quincy Railroad, Valuation Docket No. 715, Dec. 1927):

> "The rate authorised controls the amount of earnings. The earnings in turn determine and fix the value of the property. Therefore the rate determines the value, and we have a conclusion that the value determines the rate, and the rate determines the value; and if the value of the property depends upon the rate, which in turn depends upon the value of the property, the rate would depend upon itself, resulting in an apparent absurdity. It is therefore clear that such value as is attributable to the property of a public service corporation by reason of its earnings should not be included in forming a base upon which a reasonable and fair return should be secured."

Can there be a "value of the property" that is not dependent on its earning power? Even the hardiest adherent of the labour theory of value would hesitate to give an unqualified affirmative. If either labour or capital, misplaced through faulty estimating or adverse market development, can nevertheless claim "value," the claim is ethical, not economic; save in so far as secondary consequences of the position may override the immediate financial logic. But the "vicious circle" argument, coupled with the valuation principle of rate-making, has produced more kinds of "value" than ever found their way into a text-book. Let us look at some of them.

The court, in the *Smyth* v. *Ames* decision, mentioned as entitled to consideration all the items that came into its head—original cost, subsequent additions, market value of securities, reproduction cost, earning capacity and operating expenses—and cheerily added, "We do not say there may not be other matters"; but what to do with all these items when one had them neither the court nor the Commission has ever specifically determined. The

enumeration in the 1920 Act is still more inclusive, but equally devoid of principle. In one case (Los Angeles and Salt Lake R.R., Feb. 1927) a district court affirmed that the Commission's action "was based upon the view that the property of the railroad company in question has more than one kind of value. And in our opinion that view constituted its fundamental error." But its opinion was sharply overruled by the Supreme Court. The Commission stated in the Burlington docket: "Value for rate-making purposes and commercial value arising from earning power are so wholly different that they cannot be reconciled." The multiplicity of elements of value cited in the statutes, and the absence of any accepted weighting principle, have left room for much ingenious theorising in the railroad protests.

The most general railroad claim is that reproduction cost should be accepted as the controlling factor, or given more weight than the Commission has given it. A moderate and reasoned statement of the case is contained in the New York Central's brief (October 1927):

> "Approaching the matter from the standpoint of the decisions of the Supreme Court, in confiscation cases, we would have cost of reproduction as the controlling figure. Reproduction new would be subject to an upward adjustment to reflect prices prevailing at and following valuation dates. Reproduction new as thus adjusted would be depreciated by an amount ascertained by actual inspection of the property and a study of recorded conditions. A definite sum for appreciation would be found and added to the depreciated cost. This general result would be increased for going-concern value by a percentage not less than 10, probably more, since 10 per cent. would be low for these impressive properties."

Other roads have claimed 25 per cent.

The railroads can quote various public utility decisions in support of their contentions; and in two of these (South-western Bell Telephone, May 1923, and Indianapolis Water Company, November 1926) the courts not only accepted reproduction cost at present values as the controlling factor, but also enjoined a consideration of probable future appreciation. To quote the latter decision:

> "In determining present value, consideration must be given to prices and wages prevailing at the time of the investi-

gation; and, in the light of all the circumstances, there must be an honest and intelligent forecast as to probable price and wage levels during a reasonable period in the immediate future. In every confiscation case, the future as well as the present must be regarded. It must be determined whether the rates complained of are yielding and will yield, over and above the amounts required to pay taxes and proper operating charges, a sum sufficient to constitute just compensation for the use of the property employed to furnish the service; that is, a reasonable rate of return on the value of the property at the time of the investigation and for a reasonable time in the immediate future."

Without entering upon a discussion of all the elaborate fictions involved in hypothetical reproduction costs, or the accounting problems of appreciation and depreciation, the position of the Commerce Commission may be briefly indicated. The Commission has accepted, as it was bound to do, the duty of estimating and considering reproduction cost, but has stood firm on the position that it is "not the sole factor" (Pennsylvania Hearings, November 1927). It has from time to time emphasised the practical impossibilities involved, and pointed out the futility of adopting a basis which would vary from year to year with changes in the price-levels and conditions of supply. Even in the case of railroad lands, where the Commission is directed to ascertain present value by comparison with other lands in the vicinity, the difficulty is constantly arising that there are no comparable lands for purposes of railroad exchange-value. Further, reproduction cost involves other than physical items of value as to which there are separate grounds of dispute. "A valuation arrived at by the sole use of either the prudent investment theory, bottomed upon cost when constructed, or upon the theory of the present cost of reproduction new, less depreciation, would work presently to the public, and eventually to the carriers themselves such monstrous inequity as to preclude wholly the use of either of such methods exclusively" (St. Louis and O'Fallon case, December 1927, concurring opinion of Judge C. B. Faris). Clearly, to base the determination of actual rates upon values that are not realised, nor even realisable, would be a procedure neither practicable nor just.

Turning to the extreme alternative, there are obvious difficulties in the way of accepting original cost plus subsequent additions —though it is to this principle that the Commission is supposed to

lean. The first of these is that original cost is not, as a rule, specifically ascertainable. The property accounts of the carriers are on the whole nowhere near adequate to an original cost physical valuation. But even if they were, a further difficulty arises. What the Commission has to determine is not a cost, but a value; and the practice of the companies themselves in respect of securities issued indicates the wide difference between the two. But how is the transition to be made from cost to value without encountering the forbidden factor of earning power?

It is being made in practice, so far as can be gathered, by consideration of the investment account; and the crucial question still is, apparently, as to the reasonableness of the capitalisation imposed on given properties. This, of course, is merely to admit earning power by the back door while ostentatiously barring the front; but it is in line with the continuing function of the Commission to act as censor of all security issues, and it reduces the problem at least to manageable terms. Further, it is theoretically sound to admit that a property of any given cost may both acquire and confer new value in the act of being brought into the fabric of an active concern, and that this value is entitled to be represented in the capitalisation in order that the enterprise of planning and making the connection should be rewarded.

It must be borne in mind that while the Commission is thinking (officially) of returns upon the property, what the railroads must consider are the earnings of the Corporations, upon which the willingness of the public to supply them with further capital depends. The efforts of the railroads to raise their official valuations to a point that will meet the latter contingency have therefore injected every possible claim into the valuation controversy. "Goodwill" has frequently reappeared, notwithstanding that it was officially dismissed nearly twenty years ago on the ground that it can obtain only in competitive business (*Willcox* v. *Consolidated Gas Co.*, 212 U.S. 19, 1909)—a very dubious proposition. In its place, however, we now have claims for "monopoly value" running into hundreds of millions; though no claimant has ever expounded the principles on which such an item can be isolated. Seeing that such value, if it exist at all, is plainly, in the case of a utility, the creation of public authority and is non-transferable, the logic would appear to be thin.

The favourite claim, however, is for "going-concern value." This is an item that the Commission has repeatedly stated it allows for—though by no means as liberally as the railroads demand. "Our tentative valuation of the carrier took into

consideration the fact that it was on valuation date a vitalised, organised, going railroad" (Florida East Coast, 84 I.C.C. 24, 1924). As Mr. G. C. Henderson points out[1] in comment upon the Willcox case, a plant is not even worth what it cost unless it is in a position to do profitable business. The case is fully argued in the Commission's answer to the Pennsylvania railroad (November 1927):

> "A public utility is limited to a fair and reasonable return. It may earn more than a fair rate of return, but has no legal right to do so, and going-concern value should not be based upon its ability to earn more than a fair rate of return.
>
> "Similarly, there is no reason why going-concern value should be allowed because a utility has demonstrated its ability to earn precisely a fair rate of return. The public has fulfilled its entire obligation when it has paid rates which produce a fair rate of return. The utility need not be rewarded for its ability to earn a fair rate of return by an additional allowance for going-concern value.
>
> "Still less reason exists for making an allowance for going-concern value in the case of a utility which is unable to earn a fair rate of return. That would be virtually placing a premium on inefficiency or lack of prudence and foresight."

It is true that going value has been allowed in a considerable number of public utility decisions and appeals,[2] where it usually takes the form of a percentage addition to physical valuation, varying within very wide limits. Even these cases, however, suggest that on the whole argument has been in fact (though not in theory) retrospective from earnings to rate base rather than the reverse, with the intangible elements of value as shock absorbers; and the net effect is to emphasise the impossibility of determining a rate base in vacuo.

The decision of a special district court of Missouri in the St. Louis and O'Fallon case (December 1927) has been widely interpreted as confirming the Commission's valuation procedure; but in point of fact it merely added one more to the list of judicial evasions of the question. The case was a test case arising from a specific claim for recapture of excess earnings; and some idea of the magnitude of the sums involved may be gained from the

[1] *Harvard Law Review*, V. 33, pp. 902, 1031.
[2] See M. C. Waltersdorf in *American Economic Review*, XVII. 1, pp. 26-38.

following estimates of alternative valuation totals for the roads as a whole: [1]

The difference between the Commission's valuation procedure and the reproduction basis was stated by the Chairman of the Commission to represent an increase in rates of 18 per cent. But the O'Fallon decision did not settle this question; for by including the carrier's portion of the excess earnings with its free return, as indicated above, the court found that the road would be earning, *even upon its own valuation*, a rate of return (6·97 to 8·71 per cent. during the years in question) that "could hardly be called confiscatory," so that "the verity of the Commission's valuation herein need not be examined, and cannot affect this recapture order, and therefore that such order is not open to attack upon the ground of wrongful valuation."

It is extremely doubtful whether the Supreme Court, which now (March 1929) has this case under advisement, will lay down any final rule or procedure for valuation, though a confirmation of the decision of the lower court will strengthen the Commerce Commission in its attitude. Expert opinion is fast coming to accept the verdict of J. J. Brandeis and Holmes, in their dissenting opinion in South-western Bell Telephone, that the *Smyth* v. *Ames* rule, enjoining physical valuation as the rate base, is "legally and economically unsound," and that the only workable base is the "actual prudent investment." This involves in effect an abandonment of the whole rate base theory of rate-fixing, since it is manifestly futile to pretend that prudent investment can be determined without regard to probable reasonable earnings. Some other way of deciding the reasonableness of rates must be found.

Two principles emerge, on consideration of the facts as well as the arguments in the record, as affording some measure of guidance. The first arises from the duty of the Commission so to fix rates as to secure the continuance and development of adequate transportation service. The President of the Pennsylvania said recently:

> "Whether the valuation is put at one figure and the return earned upon that valuation is low, or whether the valuation is put at a lower figure and the return earned is high, is,

[1] Slason-Thompson Bureau and I.C.C. brief in O'Fallon case.

	Million dollars.
I.C.C. valuations to end of 1925	22,356
Claimed net investment 1926	24,229
Capitalisation of 1926 net income at 4½ per cent	31,078
Reproduction cost basis	35,000

> after all, but a mathematical equation; the practical question is what are we actually able to pay by way of return upon our existing securities, and is our margin over that payment sufficiently attractive, in every year to draw to us the new capital from investors, by whose voluntary acts alone can be obtained the capital we require."

This needs supplementing, however, by a second rule to the effect that no organisation, whether public utility or other, is entitled to use a position of economic power, *howsoever acquired*, to extort payment above what is necessary, as indicated by the general experience of the community, to secure the services of labour and capital needed in the performance of its function.

This, though doubtless ethical in its application, can be defended on the economic ground that such extortion involves a diversion of national income from high to low productivity centres. The case of a concern that has in fact capitalised its expectation of ability to extort can be dealt with only by reference to charges that are found adequate in other cases, and by arguing backwards from these to the "prudence" of the investment—with due allowance for the unforeseeable nature of adverse contingencies. Government has, in fact, only a very limited duty to protect the economic community from the consequences of past sins or errors, and is in the last analysis powerless to do so. It is in this way that the old postulates come home to roost.

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REVIEWS

A History of Prices and of the State of the Circulation from 1792 *to* 1856. By THOMAS TOOKE and WILLIAM NEWMARCH. (4 vols.) (P. S. King & Son. 1929. £4 4*s*.)

An Introduction to Tooke and Newmarch's "A History of Prices." By T. E. GREGORY, D.Sc. (P. S. King & Son. 1929. Pp. 120. 2*s*. 6*d*.)

THIS re-issue of the famous *History of Prices* will be widely welcomed, more especially as it is accompanied by a lengthy Introduction from the pen of Prof. Gregory. It was also a happy thought to make the Introduction available separately at a modest price for students who, while interested in the monetary and banking controversies of the period, are still unable to indulge themselves in the luxury of the four-guinea *History*. The re-issue is also to be welcomed for other reasons. Recent theoretical and practical discussions have led back in many cases to the problems which entered into the controversies of a century ago, and there has been a marked revival of interest in the events and the literary productions of the period with which the *History* deals. Evidence of this is perhaps best indicated by the writings of Cannan and Hawtrey in this country and by Silberling and Angell in America. Nor is this renewed interest based merely upon a search for historical parallels to more recent problems. It may be said that the topics of current monetary controversy have their origin in the period with which the famous *History* deals, and the fact that Tooke's writings in particular are not free from contradiction, though it makes the *History* more difficult reading, does not detract materially from its significance. Its writers were historians with a thesis to prove or to disprove, and over the period their opinions changed in many important respects. Hence the importance of the Introduction which accompanies the present edition. It goes far to meet what was a real gap in the curren literature of the period, and its value is enhanced by the appearance of two volumes of "British Banking Statutes and Reports, 1832–1928," accompanied by another useful Introduction. The *History of Prices* itself may be validly described, as Dr. Gregory expresses it, as "the first systematic utilisation of historical material for the establishment of economic truth"; and while it may not be written in the style most generally approved by modern economic historians it remains an indispensable treatise

of the period. Its authors may rather be included among the great pamphleteers, and, with one brilliant exception, the art of pamphleteering seems now to have been lost.

One of the curiosities of the *History* is the failure to make use of the device of price index-numbers although its authors were familiar with the method. This omission, as it happened, was important. Particularly in his earlier writings, Tooke argued that the influence of the currency factor was generally over-estimated at the expense of the stress laid upon such things as the seasonal variation of crops, the break-up of normal trading relations and other influences affecting production costs. In his treatment of the rise in prices after 1797 and also in his treatment of the fall in prices after 1819 these factors are stressed. But most of his price quotations referred to articles which entered into international trade, and the narrowness of his selection gave to his conclusions a weight which they perhaps did not deserve. The failure to use index-numbers meant among other things that there was no clear conception of price trends. "The only possible defence," Dr. Gregory suggests, "is that Tooke and Newmarch were in reality more interested in the dialectical than in the statistical treatment of the subject."

In the post-Resumption controversy Tooke argued that the fall in prices after 1819 was not to be attributed to Bank of England policy. Exchange parity had already been reached by the time the Act came into operation and there was no need to deflate further in order to attract gold. In fact it is argued that the Bank could only have prevented an influx of gold by reducing its interest rate, and this would have involved "a very unusual effort on the part of the Bank, involving a departure from its ordinary rules, in extending its securities at a greatly reduced rate of interest, which might have had the effect of hastening the direction of capital to foreign investments." The real point at issue, however, as Dr. Gregory indicates, was "not whether the Bank was forced to adopt unusual measures to force the value of the British currency up to the value of gold, but whether it ought to have adhered to its routine if, by doing so, it was to raise the value of the currency *and* gold. . . . The fact is that the Resumption of 1819 involved the problem of a managed gold standard and that Tooke was in this matter on the side of the sceptics"

This scepticism reappears in other forms. In the third volume Tooke opposes "the supposed duty of the Bank of England to accommodate the Trade, and to support the com-

mercial Credit of the Country." To do this would conflict in many cases with its primary duty, which was "the fulfilment of its own engagements to pay its notes in coin." The doctrine which he opposed was "specious and popular." Merchants were not entitled to regard discount facilities as a right, and Tooke pressed his point against the views of some of the Directorate of the Bank itself. This view, of course, is one which requires to be reconciled with the other tenet of central bank policy, that in time of crisis the Bank should lend freely if for no other reason than that of maintaining its own safety.

The development of Bank of England policy in this period is important. In 1819 the Court of the Bank repudiated the doctrine that it was possible by contracting its issues "to obtain a favourable turn in the exchanges, and a consequent influx of the precious metals." Eight years later that resolution was rescinded on the motion of Mr. Ward, who in 1832 declared that no member of the Bank would deny the opinion that it "should conduct itself, in its issues, with reference to the state of the foreign exchanges and the bullion market." The Bank was now pursuing a less "passive" policy. In 1825 it endeavoured by lending freely to allay the crisis of that year, and by 1829 it was endeavouring to "regularise the flow of funds to the money market." These and other steps marked the departure from the earlier anti-bullionist attitude which its Directors had adopted. By 1832 the Bank was conducting its issues on the principle of a $33\frac{1}{3}$ per cent. cash reserve, "the circulation of the country," according to Horsley Palmer, "so far as the same may depend upon the Bank, being subsequently regulated by the action of the Foreign Exchanges." But here again the main rôle of the Bank was to be passive. It was to be left "to the Public to use the power which they possess, of returning Bank paper for bullion." Special circumstances apart, the Bank would not "forcibly contract their issues by a sale of securities, during an unfavourable course of exchange . . . or forcibly extend their issues when the exchange was favourable." It was also argued that it was desirable to stabilise the volume of securities so that the public would be able to "act for themselves" both when gold was coming in and when it was going out. But, of course, as Tooke himself pointed out, a stabilised reserve ratio was not consistent with a stabilised volume of securities, and in fact it was the latter rather than the former which was really preserved.

The Bank's policy as outlined in 1832 leads on to the Act of 1844. To stabilise the volume of securities and at the same time

to allow the public to determine the fluctuations in the note issue seemed to warrant the separation of the two departments of the Bank, and that was reinforced by the view that deposits were not "money." Overstone's famous remark may be recalled, that "the principles upon which these two branches of business (*i.e.* note issue and deposit banking) ought to be conducted are perfectly distinct, and never can be reduced to one and the same rule." Tooke also, in the third volume, distinguished between notes and deposits, but he did not approve the proposal to separate the two departments. If it had been the only means of "preserving inviolable the convertibility of the paper, which I hold to be the condition *sine qua non* of any sound system of currency," he would have agreed to the proposal. But that he doubted, and even if it succeeded in preserving convertibility for notes the separation might "under some conceivable circumstances be attended with a whimsical effect." The Banking Department might be obliged to stop payment while the Issue Department went on as usual. "Upon the whole," he concluded, "I cannot help thinking, with great deference to the deservedly high authority of those persons who have recommended such separation . . . that if such separation could be carried completely into effect, which seems to be doubtful, the system would not be found to work so well . . . as the system of union of the two departments, *provided* that the system as it exists in that respect could be guarded from such danger of suspension of convertibility as we have now so narrowly escaped." And he goes on to suggest that the Bank should "undertake to hold in reserve a much higher average amount of bullion" than had hitherto been deemed necessary. The Act of 1844 was bitterly attacked. "Viewing it simply as an act of the defunct parliament, I am entitled to express myself freely upon it, and I therefore venture to say that it is, in my opinion, *one of the most wanton, ill-advised, pedantic and rash* pieces of legislation that has ever come within my observation, upon a matter which I had taken some pains to make myself acquainted with." The immediate experience after 1844 seemed to warrant strictures of this kind, but it is a controversial point as to how far that immediate experience was due to the changes brought about by the Act of 1844, or how far it was due to the policy of the Directors of the Bank.

One minor misprint may be noted. On p. 46 of the Introduction the reference in the footnote should be to Vol. II of the *History*.

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Currency and Credit. By R. G. Hawtrey. Third edition. 1928. (Longmans, Green & Co., 16*s*. Pp. x + 477.)

Mr. Hawtrey has produced a new edition of his *Currency and Credit*. Every student of economics ought to take the opportunity of re-reading this monumental work. Under the guise of a discursive essay it is in fact a systematic treatise on fundamental principles. The obscure and sometimes vague or tortuous style of the opening chapters resolves, as the book proceeds, into fine vigorous lucidity. Mr. Hawtrey has his own idiom. It turns out to be serviceable and compendious. A limited set of expressions, once defined, suffice for the vast manifold of problems which he propounds. He gives full measure; exploring every possible variation of circumstance, he is driven into repetition occasionally, but he is never tedious.

Mr. Hawtrey has rewritten part of the old book and has introduced some new chapters. The substance of his theoretical analysis remains the same. His historical sections, now divided off into a Part II, are most brilliant. They are an excellent illustration of the value of theory to the historian. Every researcher into the annals of coinage or banking would do well to make the study of *Currency and Credit* a propædeutic to his work. For unless the historian has a thorough understanding of monetary causation, his history not only is not interesting, but is not history, and is indeed quite meaningless. Mr. Hawtrey sets a new standard for work of this kind.

In his new critical chapter, which contains much that is interesting, he brushes aside the work of others a little unfairly. For instance, he condemns Professor Fisher for including rights to receive money, such as bonds and debentures, in the term T of his well-known formula (p. 37). But in his own final pronouncement Mr. Hawtrey says (p. 59), "the price level is proportional to the Consumers' Outlay and inversely proportional to the quantity of goods (including capital goods) bought by consumers per unit of time," and again (p. 60), "here we have a form of the quantity theory which employs a quite definite index-number, weighted according to quantities consumed," and on p. 46 he writes, "it must be understood that 'consumer' includes 'investor.'" Does Mr. Hawtrey deny that the consumer sometimes lays his money out by investing in War Loan? Then the price of War Loan must be included in his "quite definite index-number," and mere rights to receive money must be included in the "quantity of goods bought by consumers per unit of time," although the inclusion of such transactions is "absurd" (p. 37).

Mr. Hawtrey has not found a way out of the difficulties which beset Professor Fisher and falls victim to his own condemnation.

Of the formulæ of Professor Pigou and Mr. Keynes he complains that they " involve comparisons of the wealth value of the unspent margin at different times. In such comparisons a price index is an essential factor, but they leave the index undetermined." They do not " involve " though no doubt they are intended to be used for such comparison. They differ from Professor Fisher's in that the time element does not enter into any of their terms. Moreover, they are valid whatever price index is used, provided that the same index is used on both sides of the equation. Mr. Hawtrey does not himself attain a satisfactory solution of the problem either of index-numbers or of the construction of a suitable formula (cf. pp. 60–63).

Of greater interest is his concluding paragraph. " Mr. Keynes suggests that the individual in settling his cash balance would take account of the cost of living. But in reality everyone settles what margin of unspent purchasing power he shall keep by reference to his prospective receipts and payments in monetary units. The wealth value of the units is not itself part of the calculation." This would be true of the individual resolved, say, never to overdraw, or never to overdraw more than a certain number of pounds. But is not the number of pounds by which an individual chooses to let himself be overdrawn at the time of maximum expenditure a function of the value of the pound ?

It is surprising to find that on occasion even Mr. Hawtrey can fall unawares before the people. In seeking to relate the price level to the unspent margin, he writes, " Consumers' Outlay is proportional jointly to the unspent margin and the circuit velocity of money." The circuit velocity of money is defined as Consumers' Outlay/unspent margin. What value does Mr Hawtrey attach to the proposition, Consumers' Outlay is proportional jointly to the unspent margin and the Consumers' Outlay/the unspent margin ? He is able to infer from it the proposition which professes to relate the price level to the unspent margin : the price level varies *directly* as the unspent margin and the Consumers' Outlay/the unspent margin . . . (pp. 59–60).

Mr. Hawtrey has fascinating chapters on Inflation and the aftermath. In discussing our return to the gold standard he writes :

> " Any permanent gain could only be derived from the high bank rate through a contraction of credit and an enhancement of the wealth value of the pound. That, indeed, occurred. The price index fell from 171·1 in January 1925

to 143·6 in April 1926, and (after the coal dispute) to 140·6 in March 1927. But a great part of the effect was nullified by a fall in the American price level. The index fell from 161·0 in March 1925 to 145·3 in March 1927. The value of the pound was being forced up, but the objective aimed at was receding."

He concludes incisively thus:

"There has been a conflict between the cheap money policy of New York and the dear money policy of London, and the latter has prevailed owing to the international potency of the London discount market. The result has been a departure from the stabilisation policy of the Federal Reserve Banks. The departure has been less marked than in 1924. The fall of prices, after allowance has been made for non-monetary factors such as the abundant cotton crop, has been less. The falling off of production has been slight. The injurious effects have not been serious, because the credit restriction has only reached the United States in a diluted form.

"In England and Europe the effects have been much more conspicuous. The net progress in England towards the elimination of unemployment since the 4 per cent. bank rate was made effective in July 1924 has been *nil*."

It is difficult to follow Mr. Hawtrey in believing that the Federal Reserve system, with its vast stock of surplus gold giving it a power to expand and contract credit on a great scale, which the Bank of England does not possess, is unable to control the Consumers' Outlay and the unspent margin of its own people. The big open market operations in the autumn of 1927 made U.S. prices take a turn in the opposite direction, in spite of the fact that our bank rate was not reduced.

But there is a more fundamental point which Mr. Hawtrey does not touch on. It cannot be expected that progress in *per caput* production will be the same in all countries. Progress is a function of the rate of accumulation, which is itself a function of the ratio of the volume of existing accumulation to the population and of the ratio of available natural resources to the population. Where accumulation is large and natural resources extensive the rate of progress must be expected to be high. Mr. Hawtrey's conception of the proper monetary policy is that it should always steer between inflation and deflation; a narrow route is marked out for it, the route of stable prices. In his concluding pages he raises the question whether the value of the monetary unit should

be fixed in terms of goods or in terms of human effort (p. 451), whether the prices of commodities or of services should be stable; but he seems to regard this as a Utopian puzzle and not of immediate importance. Yet even at the present time the paths of stable commodity prices and of stable money wages are in some countries widely divergent. Which is the path to be taken in order to avoid inflation and deflation, in order to cure the "inherent instability of credit"? Mr. Hawtrey does not show that the price of services ought to be altogether excluded from the index-number which it is proposed to stabilise. But if it is to have some place, the commodity-price policy required in countries with different rates of progress is different. The country of high progress will need to have its commodity prices falling more or rising less than will less progressive countries. If this is so, the course of commodity prices required to avoid inflation in the United States would produce depression here. May not this be a reason why the fall of 1925–7 produced different effects in the two countries? With productivity increasing at a rate in the United States which allowed real wages to rise considerably, some fall in commodity prices[1] may have been necessary to avoid inflation. The same fall in prices occurring here would, since our rate of progress is less rapid, naturally produce depression. For the same reason, a fall in wages, unnecessary in the United States, would be required here; in the absence of such a fall, the depression would be intensified. Mr. Hawtrey lays stress on the fact that the fall in prices was greater here. Would this alone account for the great difference in our positions at the end of five years, had not the more fundamental cause been working against us? A policy which makes the mean of commodity prices and service prices stable in the United States makes it fall here, if both countries have the same standard. If a given behaviour of the mean is required to avoid Scylla and Charybdis, either this country must run on Scylla or the United States on Charybdis.

Mr. Hawtrey does not consider this problem. He has long been the brilliant advocate of the policy of international co-operation in order to stabilise the commodity value of gold. Such a policy would remove the blatancies of pre-war credit fluctuation. It would be a great improvement. It may be the best policy we can hope for. Is it absolutely the best?

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[1] Mr. Hawtrey's figures give an exaggerated idea of the fall. March 1925 was the peak of high prices, and March 1927 almost the lowest point in the last five years in the U.S.

Statistical Laws of Demand and Supply, with special application to Sugar. By HENRY SCHULTZ. (Chicago. Illinois: The University of Chicago Press. 1928. xx + 228 pp.)

PROFESSOR SCHULTZ's purpose is to give numerical and algebraic form to the demand function and to the supply function, by the use of modern statistical methods. For illustration of method he chooses the statistics of the supply, consumption and price of sugar in the United States in the years 1890 to 1914. The evident difficulty in obtaining statistics for the ordinary supply and demand curves is that these refer to a series of prices at one instant, only one term of which is realised, and that more terms can only be obtained when some of the circumstances which determine price must have changed. After discussion of various forms and meanings of these curves, the author, following the mathematical school, writes the law of demand in the form [1]

$$x_0 = f(x_1, x_2, x_3, \ldots, x_n)$$

"where x_0 and x_1 are, respectively, the price and the quantity of the commodity in question, and $x_2, x_3 \ldots x_n$ are the prices of other commodities." This is a static law, but it can at once be made dynamic by introducing a variable, t, for time within the function. Then with sufficient observations it would be possible to find a form for the function, and so express the price of a commodity as a known function of the quantity bought, for any assigned values of the remaining x's and of t. "In practice only a small advantage is gained by considering more than the first few highly associated variables," and Professor Schultz in this book never uses more than four variables after disposing of the time variable. In dealing with demand, in fact, he ignores the individual prices of all other commodities but sugar, on the ground that the dominant factors are "the growing popularity of sugar as an article of consumption, the increasing population, and the changes in the general price level."

At this stage it must be remarked that the equation written above assumes that the form of f is constant, and that any arithmetical coefficients involved are also constant; it is, in fact, derived from a hypothetical constant utility surface. "Growing popularity" presumably implies that the utility function of all commodities has been in course of time modified, so that the demand for sugar has become more intense relatively to other goods, or has changed in some other way. It is, in any case, hardly reasonable to assume that the general utility function of the

[1] I should have expected to find quantities instead of prices for $x_2, x_3 \ldots x_n$

population in 1914 is the same as that in 1910. If we take two commodities x and y only, and suppose the utility function to be

$$u = ax^2 + 2hxy + by^2,$$

one of the simplest possible forms, then a, h and b presumably vary with t, and we ought to write the equation

$$u = a_t . x^2 + 2h_t . xy + b_t y^2.$$

One of the methods used by Professor Schultz for eliminating t is equivalent to writing $x = f_1(t)+x'$, and $y = f_2(t) + y'$, but this does not transform the first of the equations just written into the second, unless h is zero, or $h^2 = ab$.

The elimination of t is accomplished in this work by alternative methods. The first is that of "link relatives," where the variables operated on are the ratios of the quantities in one year to those of the preceding year, so that the resulting equation expresses the change in consumption from one year to another that is connected with a change in price. The second is that of finding the trends of all the variables concerned, and expressing the values in each year as ratios of the normal value in that year as measured by the trend. The first of these methods seems to be open to the least objection, for the ratio from one year to the next is presumably very slightly affected by a gradual change in the utility function.

The statistical analysis is first applied to total consumption of sugar and actual prices, using first link-relatives and then trends. By the one method points are plotted whose ordinates may be written $p_{t+1} \div p_t$ and abscissae $x_{t+1} \div x_t$, where p_t and x_t stand for price and quantity in the t^{th} year. In the other method the ordinate may be within $p_t \div \pi_t$, where π_t is the price given by the trend, and the abscissæ $x_t \div \xi_t$, where ξ_t is the trend quantity. In each case there is a careful statistical discussion as to the best equation to be assigned for a line passing as nearly as possible to the points. This approach no doubt gives a statistical result but it is very difficult to relate it to a demand curve in any definable sense; for not only have changes in quantities and prices of all commodities but sugar been ignored, but also it is assumed that the effects of the change of population and the change in the value of money are negligible in the course of a year. By this summary method we are taken very far from the first assumption of a utility function.

The second approach is by operating on the per capita, instead of the total, consumption, and the "real" price, obtained by dividing the money price by a general index number of whole-

sale prices. Both the link and the trend methods are again used. Here we can connect the resulting equation with the hypothesis more closely. It is easier to imagine an average American's utility surface than one for all Americans. The introduction of a general price, a linear function of $x_2, x_3 \ldots x_n$, is equivalent to giving a special form to the equation in the first paragraph above, viz.:

$$x_0 = x_g \times f(x_1) - (a_2 x_2 + a_3 x_3 + \ldots a_n x_n) \times f(x_1)$$

where a_1, a_2, etc., are the weights used in the wholesale index-number. Professor Schultz, however, does not point out that this is the form.

We thus obtain a number of possible equations for a demand curve for sugar. From any of them the elasticity of demand can be at once written down at any particular price or for any particular rate of consumption. It is pointed out that unless a curve of the form $y = Ax^a$ is taken (and in general here it is rejected in favour of a straight line) the elasticity is not constant, but is a function of the price (or of the rate of consumption). In the last chapter the importance of the measurement of elasticity in relation to taxation is emphasised, with numerical examples.

The statistical analysis in relation to the supply curve is similar, except that it is extended to include imported and domestic production as variables, and is complicated by the question of the dates of the prices which are relevant to assigned dates of production.

This is not the place to review the very ingenious and thorough statistical analysis by which the variant methods are worked out and compared. It is sufficient to say that all further workers in this field will be much helped by Professor Schultz's experiments.[1] But granted that an adequate numerical apparatus is now provided, there remains the difficulty of securing enough data to establish the equations of the curve. No doubt with perfectly relevant material the central part of the curve can be established in the basis of only twenty-five points, as in this study, with sufficient accuracy to measure the elasticity in the region of prices which actually occur. But it is difficult to obtain such statistics for many commodities, and it is certain that in so long a period as twenty-five years the foundations of the problem will have changed, in a manner which, as indicated above, is not necessarily neutralised by trends or relatives. The claim that " our data, though extending over a period of years, may, when thus adjusted,

[1] Note that in the formula for S_S at the bottom of p. 43 $+ \sigma_Y^2$ is a misprint or $- \sigma_Y^2$ under the radical sign.

be conceived of as representing approximately observations taken at a given point in time—at least for practical purposes," should not be too readily conceded. If, on the other hand, we took prices in successive weeks or months, there would be the further difficulty of eliminating seasonal variation, and of correlation between neighbouring entries.

Space does not allow consideration of the non-mathematical theory discussed in this book, nor of the author's interesting criticism of some American canons of taxation. We may, however, note the ingenious suggestion to define elasticity as $\frac{d \log x}{d \log y}$, and so to get over the difficulty, at least for the curve $y = Ax^a$, between "point" and "arc" elasticity.

A. L. BOWLEY

Some Economic Factors in Modern Life. By SIR JOSIAH STAMP. (King. Pp. vii + 279. 10s. 6d.)

IN this volume Sir Josiah Stamp has gathered together a number of recent addresses on matters of general interest. The range covered is a wide one. Papers on æsthetics, inheritance, inventions, amalgamations, industrial co-operation and statistical method are included in the collection. But a certain unity pervades the whole, partly because, as an economist, Sir Josiah continually applies the general economic technique of analysis, partly because, as an administrator, or as a man of affairs, he has come into intimate contact with each of the subjects dealt with. Needless to say, the result is a work as significant for economists as each of the addresses must have been entertaining for the audiences to whom they were delivered. Sir Josiah touches nothing that he does not in some way illuminate. The treatment, as is appropriate in a collection of addresses, is suggestive rather than systematic. But a page from Sir Josiah's notebook is worth a chapter by men of less lively imagination; and the academic economist, plagued by graduates clamouring for subjects for a thesis, will not quarrel with Sir Josiah for not having worked to the bitter end every one of the rich veins of new material he uncovers in each paper. This book might well serve as an acid test for candidates for higher degrees. If the aspirant thesis-monger cannot hit on something here which shall fire the fuel of his imagination and fill him with the itch for new creation, it is safe to say he had better not write at all. The root of the matter is obviously not in him.

Some of the longest papers in the collection are known already

and demand no further advertisement. The Rede Lecture on Stimulus has been published separately and reviewed in these pages (*June* 1928) by an abler pen than the present reviewer's. The Presidential address to Section F of the British Association on Inheritance has appeared already in this JOURNAL, and is recognised by all as a contribution of first-rate importance. The paper on Inventions, however, which deals with a branch of our subject almost equally neglected and almost equally important, so far as I know has not been made generally available before. This is a seminal paper. As in the case of Inheritance, Sir Josiah expressly disclaims any pretensions to exhaustiveness, but the thirty pages he devotes to the subject are packed with hints for more systematic development, and in one or two places, notably in the sections headed "The Influence of Quality of Machinery" and "The Effect of Invention on Economic Profit," he seems to me definitely to break new ground. The precise implications of his doctrine of a balance of different kinds of invention as a desideratum of orderly progress remain to some extent obscure, but its value as an instrument for analysing certain phenomena of a society of incomplete industrial mobility is clear. This is a paper which well repays a second or even a third reading.

Of the remainder, there are perhaps two which call for special notice, that on Æsthetics and that on Statistical Method. In spite of its great personal interest and charm, the paper on Æsthetics does not seem to me to rise to the high level of its companions. Needless to say, with its substance, the desirability of considering values other than the immediate values of the market-place, there should be complete agreement. But the form in which this thesis is cast, the argument by which it is supported, do not seem equally convincing. I cannot persuade myself that Sir Josiah's delimitation of the respective spheres of æsthetics and economics is a just one. Nor can I bring myself to believe that the harmony between the spheres *so delimited* is so inevitable as he suggests. If economics is concerned with the procuring of material welfare—although, in spite of the almost overwhelming authority behind it, I cannot regard this as an appropriate conception of our science—then, it seems to me to be contrary to much experience and all *a priori* probability to urge that norms based on its findings are necessarily in harmony with norms based on studies of other forms of welfare. But this is a matter calling not for review but for much more extensive treatment.

On the paper on Statistical Method—the Sidney Ball Lecture

on The Statistical Verification of Social and Economic Theory—disagreement is of a different order. With most of what Sir Josiah says about the desirability of quantitative investigations and the influence of statistical technique on the form of future developments of abstract theory, most of us—including those domiciled at Oxford—will be in complete agreement. We might protest that Sir Josiah gives too much countenance to the pseudo-novelties of Dr. Wesley Mitchell and the institutionalists. After all, in England at any rate, the best theorists have not infrequently been also the best statisticians (who first discovered the method of chain averaging, or the uses of the geometrical mean?), and Sir Josiah's own example earlier in the book might be cited as evidence that in some spheres at any rate the possibilities of qualitative analysis are not exhausted. But these are matters of emphasis about which great dispute is unprofitable. What is more to be regretted is that Sir Josiah should have allowed his original criticism of the economics curriculum at Oxford to be reprinted uncorrected. Whatever may have been the case at the time the lecture was delivered, it is simply not true to-day to say that "the desirability of some training in published statistical data and in technique is not recognised"; and it is surely most unfortunate that this statement, with all the weight of Sir Josiah's authority behind it, should be given the permanence which is likely to be achieved by these essays.

LIONEL ROBBINS

New College,
April, 1929.

The Economics of Rail Transport in Great Britain. Vol. I. History and Development. Vol. II. Rates and Service. By C. E. R SHERRINGTON. 2 vols. (London: Edward Arnold & Co. 1928. *Pp.* vii + 283 and vii + 332. *Index to each vol.* 12*s.* 6*d.* per vol.)

THIS is an ambitious work, comprising a long historical section followed by some seventy pages dealing with the development of the permanent way and of the steam locomotive, and with carriage and wagon design. Two chapters on the growth of Government regulation follow, completing the first volume. The second volume opens much as the first does, with a review of the economic function of railway transport, and then, in what is practically a series of essays (or possibly lectures?), various railway questions are discussed. Some of them, such as railway finance, traffic control, train operation, electric traction and the

Railway Clearing House, relate to the internal affairs of the railway companies, while others, on such subjects as the railways and the trader, road competition and State ownership, concern the external relations of the railways. The chapters are not, however, grouped under these headings.

The book covers much ground and the author is obviously well versed in technical matters; he has a grasp of operating problems and experience in American as well as English railway working. His short chapter on co-operation between traders and railway companies is excellent in its comparisons of advisory organisations in different countries; it might well have been developed at greater length and an attempt made to suggest a solution of the problem in this country.

For the rest, however, the book is disappointing. The historical section is full of detail, but often to the exclusion of generalisations that would link up the facts and make them interesting. Thus, in the chapter on the "Birth of the British Railways," a brief review of canal history up to 1800 is essential to the understanding of the earliest railway developments. Mr. Sherrington follows other writers in beginning his story with the Surrey Iron Railway of 1801, and does not refer to the examples of very similar powers granted to canal companies during the previous twenty-five years. Our railways began as feeders to the canals, and many features of early railway history—for example, the provision that the railway should be open to all carriers—are readily explained when once it is realised that the early Acts merely reproduced the clauses that had been standardised in earlier Canal and Turnpike Acts. Another important economic factor that explains many developments of road, canal, and early railway transport across the south of England was the difficulty of the English Channel for sailing ships. The principle of combination might also have been used as a central theme. The history of railways becomes a connected one, something more than a chronicle of local developments, if it is treated as an economic process that produced our present four groups out of many hundreds of small disjointed companies, and the discussion of the question whether the four systems are but a step towards a single nationalised railway comes in appositely when the story is developed in this way. Actually Mr. Sherrington breaks up the history of the railways in a manner that must be confusing to readers who are not already familiar with the grouping arrangements effected in 1921. In Chapter III, for instance, under the heading "Southern Railway," he gives the

history of the various companies which form that group, but how the "Southern" itself came into existence is only explained indirectly in Chapter XII; and similarly with the other three companies. Instead of taking it for granted that his readers knew what the Railways Act of 1921 had accomplished, he would have done better had he worked up to the grouping then effected and made it the culminating point in a comparatively short historical sketch. Ripley's historical survey of transportation in the United States (*Railroads: Rates and Regulations*) is a model worth studying.

What is really wanted in a comprehensive work on the economics of railway transport is a review of the special features of railway development in this country, an analysis of the position we have now reached—the peculiarly British compromise between private ownership and ever-increasing State control—and then, the essential part of the study, a scientific examination of the problems that confront the railways. Excursions into rather juvenile economics on the general question of the function of transport are unnecessary. Marshall's treatment of the question in *Industry and Trade* can hardly be equalled, or the student can turn to the very practical analysis of Professor Seligman, whose definition of transportation as including the transmission of intelligence suggests a field not covered by Mr. Sherrington. The latter invites criticism when in his opening words he says, "Transportation may be defined as the carriage of persons and goods from places where they are less useful to places where they are more useful."

The railways to-day would seem to be at the lowest ebb of their fortunes, facing immensely difficult problems of internal adjustment and reorganisation with external conditions unfavourable, and the country on the whole unsympathetic and inclined to write off the railways in favour of motor transport. Yet those who look beneath the surface may find reasons for thinking that the turning-point has been reached and that the very strenuous if not always very skilful efforts which railway managements have made during the last few years are now being rewarded with some measure of success. Grouping meant much dislocation and, carried out as it was by mere human beings with little of the superman about them, much discontent also. Service conditions were altered, and up and down the railway lines of the country innumerable pinpricks brought into being a railway personnel that was rather disgruntled, less loyal than of old, and naturally disinclined to assume any responsibility that

belonged elsewhere; an unfortunate environment for the railway manager who was trying to remodel his line, and one that during a period of transition in operating practice must make the risk of accidents more serious.

These difficulties are disappearing as the amalgamation of staffs becomes effective, just as in much less difficult circumstances it was gradually accomplished in the big bank amalgamations. The temporary expedients adopted when the present railway companies were formed—large and unco-ordinated Boards of Directors, joint managers, and the line of least resistance generally—are being replaced by efficient organisations. One cannot imagine that Sir Josiah Stamp will fail to leave his mark on the L.M. & S. Railway, and the mere fact that he was called in to preside over one of the great companies throws light on the effort that is being made to tackle railway questions in a scientific manner.

A work on the economics of railway transport in this country is incomplete without a detailed examination of the problems and results of grouping, and we feel that Mr. Sherrington, who has many qualifications for the task, should have given it far more consideration.

E. C. CLEVELAND STEVENS

The Problem of Motor Transport: an Economic Analysis. By CHRISTOPHER T. BRUNNER, M.A. (London: Ernest Benn. 1928. Pp. 187. 8vo. 12s. 6d. net.)

IT was only in 1885 that the light internal combustion engine was invented, and up to the end of the century the pioneers of motoring remained a laughing-stock and a butt for abuse. The Motor Car Act of 1903, which allowed a speed of twenty miles an hour, marked the stage of recognition, but the decisive public event in the progress of the new form of transport was the formation of the Road Board in 1909 and the rearrangement of motor taxation which the Finance Act of that year effected. The main history of motor transport can therefore be said to go back only twenty years, and has yet to be written. The subject is ultra-modern, and in attempting an economic analysis of it Mr. Brunner has had to work out for himself the method and order of treatment, for there was no standard work or text-book that could be taken as a model. Statistical information is also lacking; traffic figures, etc. are available in various official reports, but there is as yet no regular series of annual returns going back far enough to make a basis for comparisons. Under these circumstances the writer who merely collects the scattered

facts appertaining to the subject is doing useful work, but when he succeeds, as Mr. Brunner has done, in putting them together in readable form and as the ground-work of much interesting and thoughtful economic criticism, he deserves to be congratulated.

The book is excellent, both from a general point of view and as a text-book on a question of first-rate importance. There is a brief historical sketch in which the main points are well emphasised, chapters on private and commercial cars, on urban passenger traffic, road and rail transport, road construction and administration, taxation, etc. For the most part the matter is well chosen, and irrelevant detail is excluded, though the analysis of charabanc traffic seems unnecessary and there is a little repetition in the chapter on commercial goods vehicles. In places one may feel that Mr. Brunner lays too much stress on the undesirability of horse-drawn vehicles in urban areas, and on the propriety of taxing them, but he is right in emphasising a matter that is at the root of traffic congestion, and if it is true that horse transport is actually increasing in London, because it is cheaper for short hauls in crowded streets, the suggestion of an adequate tax is quite reasonable. His attitude towards the railways is perhaps a little superior, though it cannot be said he is definitely partisan against them in their struggle to meet motor competition. Far from it; in dealing with the Road Powers Bill which the railways promoted last year, he points out the wisdom of the companies in taking Press and public into their confidence, allows without reserve that the railways' request for road powers is reasonable, and correctly anticipates the success of the Bill. He is, however, most critical of the railways' argument that they are unfairly treated in the matter of rates, and carries the war right into their country, concluding, "it is not unfair to say that the railways are being subsidised by the road transport interests."

One cannot always agree with Mr. Brunner. He appears, for instance, to exaggerate the inelasticity of demand for goods traffic, not allowing sufficiently for the effect of improved facilities. His dictum that a monopoly of road transport is inconceivable requires to be qualified as regards a limited area, such as that controlled by the L.G.O.C., and it is not easy to accept his view that motor transport provides more employment than rail transport. But his treatment of the subject throughout is stimulating and thoughtful, so that one can agree to differ here and there and still thoroughly appreciate the book. The only thing against it is the price, which is prohibitive for a short text-book.

E. C. CLEVELAND STEVENS

The Railway Policy of South Africa. By S. HERBERT FRANKEL. (Johannesburg: Hortors Limited; London: Longmans, Green & Co. Pp. xvii + 367. 2*s.* cloth, 1*s.* paper.)

RECALL to mind the major traditional tendencies of nationalised railways; select those due to political influences; place them in a South African setting, and you have the chief ingredients of an extremely vigorous book. This is all the more surprising in view of the meticulous care taken in the Act of Union in 1909 for securing that the newly-established system should be operated on commercial principles, free from political taint. The Act definitely provided for the setting up of an "independent" Railway Board, consisting of not more than three commissioners and a Minister of State, to control and manage the railways, ports and harbours of the Union on "business principles." It is the author's aim to show that these provisions have been consistently violated, to the detriment of the country, largely owing to the powerlessness of the Board and its subservience to the wishes of the Government.

Quite in contravention of 1909 principles, the system has been burdened by the over-generous capitalisation at which it was originally taken over. In addition, the annual charge for depreciation and renewals has been much greater than the average life of the stock warrants. The provision of new capital, far from being decided on its economic merits, has been subjected to arbitrary political expediency, sometimes with the inevitable result that the repairs and renewals fund has been raided to finance new expenditure which ought to have been capitalised. New main and branch lines, as in so many State-operated systems, have been the play of political tacticians. To political and social motives must also be ascribed non-economic payments and the grant of cheap services for certain purposes.

By far the most intriguing criticism is that which accuses the Government of using its uncontrolled rate-making power in such a way as to encourage or discourage industries, without open debate in Parliament. There is no equivalent to our Rates Tribunal or Railway and Canal Commission, before which traders may bring their complaints. Hence, some staple products have been burdened with what appears to be more than a "reasonable" share of the fixed charges, and others do not even cover their special costs of movement. The last word has not yet been said on the relation between theory and practice in railway rate fixation. Apart from the abstract case of discriminative monopoly, set out in the works of Edgeworth and Pigou, in

which traffic is charged what it will bear in the monopoly sense of the phrase, the sharing of the overheads among the whole traffic admits of a great deal of variation in actual world practice. Neither Taussig's nor Acworth's analysis can claim to settle a concrete problem. When, therefore, one comes to speak of the "reasonableness" or otherwise of the apportionment there is room for controversy. At the same time, so striking are the examples that it does not require much spirit of practical compromise to agree with most of the rate conclusions set out in the book. Protection versus free trade, to which the argument boils down, is still a political debate.

These are strong accusations, though it is natural to expect a little exaggeration in order to set out the case for criticism in the brightest light. Who, for example, will say that underestimating of branch line construction costs and prospective revenues is a feature entirely unknown to privately owned railways? For the most part, however, the author treats the administration soberly, preferring to under-state rather than magnify his conclusions. There is sufficient to provoke disagreement as well as agreement that the value of the book may well prove to be more in the discussion which it calls forth than in the unanimous acceptance of its findings. The Honourable J. H. Hofmeyr describes it as "arresting." If it only compels a questioning of present policy it will have done useful work, though there seems no good reason why it should not stimulate definite active reform. This need not necessarily be along the lines recommended by the author, as there are political issues of great importance to be faced. The long distances in South Africa indicate that motor competition with her railways will be much more localised than in the big towns of Great Britain but the Union will need to set her house in order if she hopes for its commercial efficiency.

C. D. CAMPBELL.

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Economics of Coal-Mining. By R. W. DRON. (Arnold. Pp. 168. 10*s.* 6*d.*)

THE bulk of Professor Dron's book is designed for the technical guidance of mining engineers on such questions as mineral leases; the valuation of minerals and collieries; the financial aspect of power production and coal cleaning; the legal questions involved in the establishment and maintenance of a working colliery.

Even when he is most technical, however, he is continually throwing out, in mental asides, points which confirm or are based upon economic theory. The deplorable housing conditions in many isolated mining communities, for example, is explained upon the grounds that the average life of a house is greater than that of a colliery. There is a possibility, therefore, that houses built specifically for miners may be valueless long before they are worn out, and this necessitates either a higher rent being charged, or the same rent for less satisfactory houses, than is the case in a large town. Or again. Anyone who is accustomed to discuss the law of Diminishing Returns in its application to mines, and who vaguely refers to the more than proportionate increase in cost as the size of the mine-shaft is increased, should refer to pp. 90–91, where he will find that, for a given set of conditions, there is one cheapest size of shaft, for whilst the cost of sinking increases with size, the cost of ventilation decreases. Professor Dron's incursions into cost accounting show how the principle of substitution is constantly operating not upon the basis of known quantities, but supported by a series of estimates of future market and productive conditions, none of them capable of immediate verification, and few of them informed by experience of exactly similar conditions. It is interesting to find, however, that the elaborate estimates which must precede the sinking of a new mine have been simplified by the quarterly figures of cost and output which the Secretary of Mines publishes for each district and which provide a " norm " around which a company contemplating a new colliery can make the necessary allowances for the peculiarities of its own enterprise.

Most economists will find Chapter VIII of greatest interest, for therein the writer joins issue with the Samuel Commission of 1925. It will be recalled that the Report of the Royal Commission on the Coal Industry of that year came out strongly for amalgamation of many of the existing small industrial units. It supported this suggestion both by deductive and inductive reasoning, for it first paraded the theoretical advantages of large-scale production, and then used elaborate statistical material to show that in the coal-mining industry of the United Kingdom, size and efficiency—efficiency being measured by output per man shift and profits per ton—usually went together. Dron's attack upon this argument is a twofold one. He doubts whether the theoretical advantages of amalgamation are either so great, or so essentially bound up with amalgamation, as the Samuel Commission claims, for he attempts to show that many of the economies might be obtained

by some arrangement between groups of separate owners in each district, and that some of the alleged savings might involve greater use in other directions, as, for example, when the working of "barrier" coal increases the charges of pumping. In the second place he doubts whether the statistical reasoning of the Commission was conclusive.

The pitfalls and inadequacy of reasoning based solely upon statistics, and the ease with which, in a controversy in which the issue turns upon statistics, the parties can be talking about different things whilst they appear to be discussing the same thing, were never more apparent than in this case. The issue between Professor Dron and the Samuel Commission involves both points of fact and lines of reasoning. The points of fact at dispute are: how far are size and efficiency related when dealing with individual collieries, and how far are these two things connected when one is concerned with undertakings—companies which may own more than one mine. Measuring efficiency by output per man shift, the Samuel Commission asserts that in the case of individual collieries the larger is usually the more efficient. Dron scores a palpable hit here, for he shows that this conclusion is only true if the whole of the country is taken, that the Commission has been guilty of the cardinal sin of "averaging" (against which it warns the reader at great length on p. 45 of its own report), and that for the older fields, such as Lancashire, Durham, Scotland and Leicester, the opposite is the case. The Commission, however, was not directly concerned with the relation between size and efficiency in individual mines; its case depends more upon the relation between these two variables for undertakings. One minor difficulty here is that the Commission had figures for the whole year 1923 and for the first six months of 1925 and the lessons taught by the statistics are not altogether the same for the two periods. It will probably be admitted, however, that the Commission does prove satisfactorily that in the case of undertakings size and efficiency go together. Dron, indeed, makes two minor criticisms, but they do not appear to be of great importance. The Commission, however, never squarely faced the point that to show that large undertakings are more efficient than small does not necessarily prove that amalgamation is desirable or even possible. The efficiency of the large undertakings may have been due to their happening to include the richer mines, and not to any advantages arising from grouping. This point is, indeed, mentioned on p. 264 of the Report, and it is obvious that the Commission appreciated the weakness in

their chain of reasoning, but they make no serious attempt to test the strength of this link, which may indeed be weak enough to undermine the whole of their case.

More vital still, and this is a point which both authorities appear to have ignored, is the assumption that size brings efficiency. All the statistical information which the Commission put forward can just as well be used to prove the converse, that efficiency brings size, that the large undertakings are not efficient because they are large, but large because they are efficient, and that the diversity of natural conditions in the mining industry has produced a whole range of firms of graduated size, each of which is producing on the most economic scale. To use the words of Mr. L. Robbins in a recent article in the ECONOMIC JOURNAL, "among businesses there is not one optimum size, but as many optima as there are different kinds of combination of factors of production." Professor Dron has been well advised to raise this question again, for it is a matter of more than theoretical interest. It may indeed be that to suggest that the many small firms in the coal-mining industry should be amalgamated into larger concerns in the hope of making economies is as useful as putting up an umbrella to encourage it to rain. It may be that the slow progress of amalgamation under Part I of the Mines Act (1926) is due not to the inertia of the coal-mine owners, but to the fact that they understand their business better than the Samuel Commission did.

J. JEWKES

How to abolish the Slums. By E. D. SIMON. (Longmans. 4s. 6*d.*)

As an expert in all matters of local government Mr. Simon won his spurs long ago, but this able and emphatic book on the next phase of the housing problem has probably added more to his reputation than anything he has yet published. The "next phase" is, of course, the abolition of slums, a task which, it is safe to say, no industrial community has ever yet finally accomplished. The other parts of the housing problem are, by comparison, straightforward, being mainly a question of money, and, as Mr. Simon points out, it will not be long before we have in this country a sufficiency of houses for those who can be prevailed upon to pay a rent of from 10*s.* to 15*s.* a week. But the slums are more intractable; their roots lie deep in the social and industrial conditions of the time, and no building programme, by itself, will cause the slums to melt away. Yet so long as they are suffered to continue, and indeed increase, in this country our

ever-growing equipment of social services is partly wasted, and social progress halts. To-day the position is, that in spite of the relatively successful housing campaign of the last four years, nothing effective has yet been done for the slums; indeed overcrowding and the conditions of the houses are worse than in 1918. In such areas as Bermondsey over one-third of the families are still living two or more persons to a room. Shoreditch is worse. Glasgow has 20,000 two-room houses and 1,600 one-room houses containing seven to nine persons to a " house." The question is, can we now proceed to build dwellings up to the approved standard which can be let at prices and on terms that will enable these people to be removed from the slums? Mr. Simon thinks we can—by the aid of a small extra subsidy. He is not prepared to wait for the only fundamentally sound solution, which is that every man's standard wages should enable him to acquire decent house-room for his family, nor does he put much faith in reconditioning of houses or cheaper building or rate relief, though these will help towards the end in view. The needs of the children must be satisfied, and satisfied by means of an extra State subvention. After all, he argues, if the State can risk the element of pauperism inherent in free education, free public health and free pensions at seventy, and can make collective provision against accident, sickness and unemployment, it surely cannot deny to its children the elementary decencies of home life. Mr. Simon's concrete proposal is a children's rent allowance of 1s. a week per head for every three-child family with an income of 60s. a week or less. Putting the total number of children in this category at two millions, he claims that the evil of the slums could be conquered for about £5 million a year.

If it could be done, we agree with Mr. Simon that it would be cheap at the price, especially if, by the same stroke, we could solve the whole baffling problem of the semi-derelict class, which more or less coincides with the slum population. But could we? Has Mr. Simon measured the full difficulties of the task? In a broad way he identifies the dwellers in slums with the class of workers earning small incomes, and his estimates are based on the inquiry into poverty conducted by Prof. Bowley in 1924 in the towns of Reading, Bolton, etc. We have no desire to dispute his figures, but we venture to doubt whether his analysis cuts deep enough. Wage statistics are obviously important, but we feel the need of some analysis which would reveal something more of the social and industrial condition of the class Mr. Simon is striving to help. Is such information anywhere available? Can, for instance, any

relevant evidence be obtained from other social services, such as Unemployment Insurance or the Poor Law? During recent years much material of value to the student has been collected by these services, particularly by the Ministry of Labour. This is no place to discuss the new evidence in detail, but, broadly speaking, what it seems to suggest is this: that there exist, at the lowest levels of the labour market, not less than half a million persons (not necessarily the same individuals as those included in Mr. Simon's half-million) who are not really eligible for regular employment and are only capable of competing for inferior temporary jobs. In the technical sense they are able-bodied. They all get *some* work, thus keeping within the wage-earning and insured category. The personnel of this partially submerged class is neither constant nor uniform. Some individuals, the younger men and women, are often capable of being trained to better things; others are, approximately, a helpless or a vagabond class of deteriorated humanity for whom nothing but deterrence or coercion is likely to avail. The whole class of half a million or more can be pictured as slowly moving through a hopeless cycle of events a little work at wages, such insurance benefit as they can qualify for, then a gap of time during which they disappear from public view, subsisting on relatives or by any of the mysterious ways in which the poorest of the poor manage to support life. Sooner or later they turn up again as applicants for out-relief from the Guardians. To none of them would a state of dependence appear to be an abnormal condition.

Is it not reasonable to conclude that this class comprises a large part, the hard core, of the slum-dwellers whom Mr. Simon hopes to re-house, if not to reform? If so, we fear that his children's allowances would be a pill to cure an earthquake. Neither on the financial, nor on the human, nor on the industrial side would the slum problem be solved. Compulsorily re-housed at the approved minimum standard, a large proportion of these tenants would, for one reason or another and for shorter or longer periods, fail to meet even their reduced rent charges, and, mingled with this, there would be a running fight between the Local Authority and those who fell below the required standards in more than their weekly payments. Once the principle of scaling down rents according to family needs was admitted, would there be any practicable halting-place short of the complete public provision of this class of housing? The Authorities would, it is suggested, have to allot to each family the minimum house-room irrespective of capacity to pay. Rent would be a secondary

consideration. Some tenants would have to be released from all payment, thus becoming indistinguishable from the recipients of domiciliary relief at the hands (in future) of the same Local Authority. But a "poor law" investigation would have to be made in every case and charges would be assessed strictly on income. The weapon of eviction could only be used in the last resort, because, in the absence of any other approved accommodation, eviction would mean the break-up of the family and committal to the workhouse.

Such measures would be a drastic dose of bureaucratic socialism, but, if Mr. Simon's children's allowances proved too small in amount and too inelastic in operation to do more than skim off the top layer of the depressed class, it would, we believe, be to methods of this kind that he would be forced before the abolition of the slums became an accomplished fact.

R. C. DAVISON

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Les Caisses de Compensation des Allocations Familiales en Belgique. By GEORGES DE LEENER. (Bruxelles: Maurice Lamertin. 1929. Pp. 195.)

PROFESSOR DE LEENER'S small work is of value, in that it adds considerably to our knowledge of the operation of schemes of Family Allowances in Belgium; it is also of interest on account of its discussion (if one may not say clarification) of some of the controversial issues involved. Much of the ground covered is inevitably familiar, yet the author provides a welcome statement of the method of organisation of the caisses, considering such problems as are involved in the appropriate basis of organisation, whether industry or region; he discusses the various systems of levying contributions, the achievements of the funds in Belgium, the effect of the Act of 14th April, 1928, of which the text is reproduced in an appendix. On all these matters, and on minor questions of administration such as are involved in the problem of double insurance (*le cumul*), Mr. De Leener writes informatively and with faith and enthusiasm. The "allocations familiales," he holds, are definitely incorporated in the industrial system of Belgium; time has consecrated them; the future will consolidate them.

But perhaps the chief interest in Mr. De Leener's work lies in Mr. De Leener himself. It is doing him no injustice to say that, whether consciously or not, he is throughout the spokesman of the Belgian employers, that he represents their point of view, and that when he is persuasive, it is primarily to recalcitrant

employers that his persuasions are addressed. This at times leads him to subtleties which scarcely escape being inconsistencies. It is for him fundamental that the allowance is a " libéralité du patron," and he emphasises this by declaring in the manner of an orthodox economist, that for labour under given conditions of place and time " there can only be one and the same price " (p. 19). The allowance must therefore be considered independently of the remuneration of labour. It is, in fact, neither wages nor a complement of wages —a point of substance in connection with workmen's compensation. Legally, the allowance is a free gift (*libéralité*), and does not correspond to any distinct " contreprestation de travail " (p. 20). The utmost he will go here is to regard the allowance as a " corrective " of the defects of remuneration of labour, in so far as that is based exclusively, " as it ought to be in sound logic," on the service rendered (p. 23). This basic view, which is of course justified on the actual historical development of family allowances, can hardly avoid bringing with it a certain aroma of paternalism, which is not to be overcome by any process of concealing the employer behind the caisse. Yet Mr. De Leener will not hear of paternalism, and distinguishes the system of allowances from all other forms of paternalism because, while the allowance is not a wage, it is nevertheless " comprise dans l'ensemble du système de rémunération de la main-d'œuvre." While emphasising that the allowances are totally distinct from wages, he is thus constrained to make them a part of wages. While emphasising throughout that the caisses have been created by the employers " dans une conception très libérale de leur rôle patronal " (p. 139), he yet repudiates all suggestion of paternalism. The inner contradiction appears glaringly when on two adjacent pages he categorically asserts that the system of " allocations familiales " has the great merit of escaping any reproach of paternalism, and at once proceeds to quote the Congress of the Commission syndicale which, as recently as July 1928, protested against the allowances assuming the form of a " libéralité des employeurs " (pp. 145, 146). It is significant that the really fundamental question of the reaction of allowances on the basic wage—a consideration of which alone could determine whether the allowances are a *libéralité*—is nowhere approached by Mr. De Leener. His persuasions addressed to the employers, indeed, rather imply that they are not.

On questions of population, Mr. De Leener holds, correctly, that if the object were to counteract a decline in the birth-rate, this would properly be a matter for the State and not for industry.

Yet here also he is driven to subtleties. For if the "allocations familiales" should lead to an increase in the birth-rate, this would not be, he suggests, a matter of indifference to industry, above all in a country like France, which is threatened with a shortage of labour (p. 24). The argument is familiar, but surely it rests on confusion of thought. For there are not two questions of population—one of population in the abstract, which concerns the State, and one concerning the future supply of labour, which concerns Industry. On the actual effect of allowances on the birth-rate Mr. De Leener is inevitably inconclusive, realising that an apparent rise may be merely due to the influx of expectant fathers and the natural expulsion of the bachelor. Yet even this, our author tells us, is a matter for gratification, since the father of a family represents a more stable and thoughtful element in the population (p. 26). This argument for employers, it may be observed, is obviously one that fails in its effectiveness as the schemes become more comprehensive.

While Mr. De Leener is emphatic as to the advantages derived by the workers, nevertheless one who views the whole question as a *libéralité* of the employer is almost necessarily impelled to find reasons for this *libéralité*. Some of these gains have already been noted. Waiving the general question of population, the system contributes to the increase of the quantity and the quality of labour. In a phrase which is ominously reminiscent of Marx, it is argued that the system provides reserves of labour to which resort may be had according to the development of industry. Employers who think that the whole question is one for the State overlook the advantages of the allocations "au point de vue de la fixation des salaires et de la modération du coût de la main-d'œuvre" (p. 98), a phrase which would seem to indicate that *libéralité* is the truest form of economy. On the general question of the relations of the workers and the employers, Mr. De Leener would seem to view the system of "allocations familiales" as an appropriate method of strengthening the position of the employing class. It is in the name of "la solidarité patronale" that he appeals to employers to make the system as universal as may be, thereby avoiding the danger of further legislative interference, tending to rob the system of its present elasticity. In a phrase which reveals a beautiful and delicate choice of words he tells us that "les mouvements ouvriers pour la hausse des salaires perdent de leur impatience sous l'influence des avantages que la famille ouvrière nombreuse retire des allocations" (p. 150).

Mr. De Leener's essay is a useful supplement to the existing literature on the subject; even if he tries at times to face both

ways and to make the best of all possible arguments, he is none the less instructive.

ALEXANDER GRAY

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Principles of Money and Banking. By R. D. KILBORNE. (A. W. Shaw Co.)

THIS book of 559 pages is designed to serve as a text. It is divided into four parts, which deal respectively with Money, Foreign Exchange, Commercial Banking and the Federal Reserve System, and Non-Commercial Banking. In each part the treatment of the relative subject-matter is comprehensive, well arranged and the writing is in general clear and not confusing. Besides the necessary historical background to be found in other texts, the writer has, moreover, been particularly concerned to discuss the recent developments in each branch of the subject. Lastly, the book is well supported by diagrams and illustrations, and in general it is worthy of attention.

More specifically, however, in places the treatment of modern developments suffers from an excess of scepticism—if not of agnosticism—on the part of the author. In discussing Professor Fisher's stabilised dollar scheme, for example, none of its virtues are cited (p. 162); Mr. Keynes' proposals receive a similar though more ruthless treatment (p. 170); the assumed causal relation between rediscount rates, the volume of bank credit, and the price level, when tested by American experience since 1920, is found to be absent (p. 329); and the doctrine of purchasing power is dismissed as being "based upon a very strict and narrow interpretation of the quantity theory of the value of money" (p. 276). As for the quantity theory itself, the discussion of it is premised with the statement that the quantity theory school "cast aside almost completely any changes in the quantity of goods as being in any way responsible for that high price level" (p. 135).

In the section on banking the book is rendered more interesting to English readers by the parallels drawn between the American and English systems. In general the material relating to the English system is accurate. A slight slip occurs on p. 289, where the joint-stock banks are said to "simply forward to the Bank of England commercial paper and have it rediscounted, and the proceeds become the reserves of the English banks." Again, the currency notes are referred to as "Bradburies" throughout.

J. SYKES

University College, Exeter.

Kartell-Organisation. By S. Tschierschky. (Berlin: Spaeth u. Linde. Pp. 190. 6.50 *m.*)

The author of this book has so special and intimate a knowledge of the Kartell system that his account of its working is a contribution of unusual value to the extensive literature of industrial organisation in Germany. The analysis of monopoly is not, in these German monographs, carried to any great degree of precision; this is both the strength and the weakness of the great bulk of Kartell studies. We are directed rather to problems of administration, to the "compromise-politics" of those who are endeavouring to find a mean between control and competition, and who do not pretend to have a solution that is free from disadvantages and dangers. Only a few Kartells can be said to have established their position; otherwise, there is an unceasing administrative effort to reconcile from time to time, by one device after another, the ideals of free enterprise and of ordered development. Dr. Tschierschky's book recalls by its completeness of detail, and by its constantly practical attitude to Kartell problems, the similar work of Liefmann. An exhaustive classification of Kartell forms is supplemented by extracts, admirably chosen, from the terms and agreements of the organisations, and these *Erläuterungen* give the reader a running illustrative commentary which is pointed and concise.

The author agrees with Liefmann that the essence of the Kartell is the control of the market rather than the rationalisation of production. The latter may or may not follow, according to conditions; but the Kartell is in itself *Wirtschaftsconservativ*, and in its essence regulative of market relations alone. Hence follows an interesting study of what this implies to the independence and individuality of the separate and diversely situated producers. This problem, so often discussed, is handled with much freshness and a sense of futurity; difficult as it is, it is one which just has to be solved.

Perhaps the most striking chapter is that which deals with the measures taken by Kartells against the independent outside producers. It is at first strange to have both the outsiders and the consumers defined as the "enemy"; but the idea of organisation as necessary against the consumer is part of the historical treatment, and is not peculiar to Dr. Tschierschky. It is only within the ambit of the claim, historically set forth, that the Kartell organisation is essential, that we can appreciate this calm account of the *Kampfmittel*—the cutting off from competitors

of supplies of materials or credit, restrictions in their transport facilities, or the various types of boycott.

This is the most informing of modern works on the Kartells. It is much to be desired that some of these studies were available in English.

D. H. MACGREGOR

The Evolution of Industrial Organisation. By B. F. SHIELDS, M.A. (Pitman: Pp. 296. 10*s.* 6*d.*)

IN the preface it is explained that this book is the outcome of a series of public lectures delivered in University College, Dublin, during the session 1926–7, and attended by business managers, trade unionists, Civil servants, and teachers and students of business organisation; that the lectures have been largely rewritten and brought up to date, and that the book is intended to provide a means of systematic instruction to the same classes of students who attended the lectures. On the cover the book is further described as containing a preliminary historical outline of the growth of industrial organisation, followed by "a very clear and informative study of the contemporary position of business combinations, scientific management, methods of industrial remuneration and the minimum wage, vocational guidance, industrial education and industrial welfare work." As a description of the general nature of the book this could not perhaps be improved upon. The book is informative of the contemporary position of the subjects mentioned, but (or consequently) it is not a study of the evolution of industrial organisation in the sense that it depicts it as an organic growth arising out of forces of specialisation and integration under changing conditions.

In Chapter I it is true we are presented with a number of salient characteristics or "landmarks" of modern industrial organisation, and in the chapter following with a treatment of business combinations, but the two chapters are not integrally connected. The topics dealt with in the subsequent chapters and the space devoted to them would seem to be more determined by the "special request" element arising out of the nature of the audience and other fortuitous circumstances than by a considered view of their importance in an organic whole. Even within each topic the treatment is mainly descriptive, and from the text-book standpoint there is a lack of indication of underlying principles. The chapter on business combinations, for example, gives a concise survey of the more general influences

which have encouraged the combination movement, and the various forms of combination are clearly described, and particular examples are given, but nowhere does it emerge definitely from the treatment that the form is dependent on the nature of the industry and the special conditions it has to face. It may, moreover, be something of an achievement to write a chapter on business combinations which includes a discussion on the attitude of public opinion in this country and elsewhere without once mentioning the soul-satisfying term, rationalisation. Doubtless the omission of the term is unimportant, but the conception which it stands for indicates a changed or more positive attitude of mind, absence of any reference to which is apt to raise suspicions as to the systematic nature of the treatment and its claim to be up to date.

A similar line of criticism is suggested by the treatment of the questions bearing more directly on the organisation of labour, such as trade boards and the minimum wage. After all, the place of these methods in industrial organisation is not to be understood apart from trade unionism, and trade unions are but incidentally referred to in the book. The methods indicate an acceptance by the State of the trade union principle of collective bargaining, and are designed to supplement it and enforce it in special cases. A standard or minimum rate of some sort is a logical outcome of collective bargaining; the good or bad effect of the rate will depend on the point at which it is fixed relative to the prevailing conditions and any other restrictions which may exist alongside of it. In a legal minimum wage there is admittedly a certain rigidity which does not exist in the more voluntary rate, and this has its own special and important effects, but the time is really past for discussing whether a minimum rate tends to be a maximum rate, as if that tendency were inherent in the principle itself (p. 196).

The book, however, contains a great deal of information in a clear and concise form, and a good attempt has been made to include in short compass reference to conditions in other countries; but information may be a little overwhelming in a text-book, and one has a lurking sympathy with the statement, "Merely to mention the by-products obtained in the course of slaughtering is a task in itself" (p. 40).

MARY T. RANKIN

University of Edinburgh.

System der Handelspolitik. By JOSEF GRUNTZEL. 3rd ed. (Vienna: Springer. 1928. Pp. 516.)

THE well-known treatise on trade policy by Professor Gruntzel appears now in a third revised edition. The second edition appeared in 1906.

The book is especially remarkable for its systematical arrangement and extremely clear exposition. It differs from the majority of German treatises in having no footnotes or references to authorities.

After a definition of the field of his investigation and an historical sketch of trade, the author divides his book into two parts: in the first part he treats systematically the inner trade policy of a country, and in the second part the foreign trade policy.

In the first part the different forms of inner trade are defined in masterly fashion and a description of institutions helping development of trade is given, viz. of fairs, exchanges, legislation or competition, trade-marks, etc., concentration of trade, commercial education and social legislation. A vast mass of examples from practice of a great many countries offers good illustration of the otherwise dry text. In the chapter devoted to the definition of wholesale trade and retail trade an interesting description of the competition between them is made.

In the second part the author exposes with great fairness the chief theories on mercantilism, free trade and protection; he does not advocate any of these systems, although he shares chiefly protectionist views (p. 258). Gruntzel's ideas on Economic Protectionism are familiar to English students, as he has published a very able and lucid book on this subject in English in 1916 (in Carnegie Endowment Publications).

In the second part of his treatise Professor Gruntzel reviews systematically different systems of tariffs, principles of commercial treaties, influence of taxation and bounties on foreign trade, preferential duties, bonded warehouses and free harbours, foreign trade statistics, sample museums and export organisations.

One is amazed at the great mass of material collected in this book. Many additions on post-war legislation are made, but unfortunately new problems and new economic conditions created by the Great War in the international trade are scarcely touched upon in the edition.

The subdivision of contents remains the same as in the earlier editions. A table giving the most important features of commercial treaties of practically all the nations of the world dis-

appeared in the edition. And—the spelling of the name of the author has been changed, viz. Gruntzel instead of Grunzel in his former publications.

A selected bibliography is added; but some very important publications are not mentioned; for instance, the book of Professor Viner on *dumping*.

PAUL HAENSEL

Prospettive Economiche: 1929. By GIORGIO MORTARA. (Milan: Università Bocconi. 1929. Pp. 498.)

THIS is the ninth of Professor Mortara's annual surveys and forecasts of movements in the production, consumption, foreign trade, prices, etc., of a number of the most important products of world trade, including hydro-electric power, freights, currency and finance.

As always, the volume contains an immense mass of valuable comparative data; the statistical tables are clearly set out and well-chosen, while Professor Mortara's comments are informative and suggestive. It would add to the value of the book if more indication could be given of the sources from which the figures are taken.

The section on coal contains a careful analysis of conditions in the different coal-mining areas and of the relative position of the exporting districts in the competition for markets. The aggregate coal output of the world in 1928 may be estimated at 1,315 million tons, including lignite reduced to its coal equivalent. Compared with the output of 1913—1,160 million tons—this represents an increase of not more than 13·4 per cent.; but, on the one hand, the increase of the supply of energy from water-power and oil may be estimated as equivalent to about 300 million tons, and, on the other hand, technical developments have greatly reduced the amount of coal used in many industrial processes. The proportion of the total energy produced, attributable to coal, which was 90 per cent. in 1900, was 84 per cent. in 1913 and 64 per cent. in 1927. The continuance of subsidies in various guises in many countries, together with the inelasticity of the demand for coal, makes it probable that prices will remain at an unprofitable level for most exporting districts. Poland, despite her geographical situation, is favoured by low wages and rapidly increasing efficiency, while in Germany the economies of rationalisation, carried out at great cost, have been largely offset by higher wages paid to the coal-miners. Professor Mortara takes a pessimistic

view of the future of the British coal industry. From 1913 to 1928 the output of Great Britain declined by 49 million tons, while that of the continent of Europe increased by 67 millions tons. "The continued contraction of exports and of supplies to international shipping [from Great Britain] in 1928, in spite of the low price of coal, is specially worthy of note."

In the case of cereals the good harvest of 1928, which was abundant both in the principal exporting and consuming countries, has kept prices very low during the last year. Demand is inelastic and stocks of wheat carried over to the next cereal year will be abnormally heavy. Even in the event of a poor harvest the existence of these stocks will militate against any considerable rise in prices. The situation in Italy is interesting because the campaign for an increased production of wheat is showing considerable results. Improved methods, especially the greater use of artificial manures, are leading to higher yields in many parts of the country, but the greater intensity of cultivation is not necessarily accompanied by increased costs. Professor Mortara quotes figures to show that, under the traditional methods of cultivation in the Plain of Lombardy, the average yield per hectare in 1928 was 25 quintals at an average cost of 112 lire per quintal, while land in the same district cultivated intensively produced 40 quintals per hectare at an average cost of 93 lire per quintal.

C. W. GUILLEBAUD

The Economic, Financial and Political State of Germany since the War. By DR. PETER P. REINHOLD. (New Haven: Yale University Press, and London: Oxford University Press. 1928. Pp. 123. Price $2 and 8*s*. 6*d*.)

DR. REINHOLD was Finance Minister of the German Reich during critical years of the after-war period, and he therefore writes on his own subject with special authority. Much of his book belongs to what appears to-day to be very ancient history, yet in order to understand the reparation question as it now is, some knowledge of the several phases through which it has passed is necessary, and these six chapters—they are really lectures given in the United States—contain all the essential facts. The account of the decline and eventual revaluation and stabilisation of the mark is particularly interesting. Reinhold attributes Germany's financial recovery to the "miracle of the Rentenmark," remarking that the success of the new mark was due to the fact that the

German people, weary of the tortures of inflation and despairing of any other salvation, "grasped greedily at the new medium." It was, in fact, a sort of faith-healing on the material plane. How unhealthy conditions had been allowed to become is illustrated by the fact that the "Personnel Retrenchment Ordinance," under which Reich Departments were to reduce their establishments to reasonable proportions, led to the cashiering of 114,000 officials, 32,000 clerical employees, and 184,000 workmen in Government service, representing a saving of 300 million marks a year. Counting the reductions made by the States, provinces and municipalities, three-quarters of a million persons are said to have come under the great purge.

For the Dawes scheme and its author, as well as for the present Agent-General for Reparations, Reinhold has nothing but praise, yet he evidently anticipated the revision which is a subject of negotiation at the present moment. Although he predicts a hard discipline for his nation for a long time to come, he has no doubt that Germany will come through her difficulties and be all the stronger, politically and morally, for the ordeal. A spirit of moderation and fairness and a hopeful outlook are outstanding merits of this book.

W. H. DAWSON

Banking Standards under the Federal Reserve System. Published for the Bureau of Business Research, North-Western University. (Chicago: A. W. Shaw Company. 1928. Pp. xxxviii + 420. $7·50 net.).

DR. HORACE SECRIST, as Director of the Bureau of Business Research, and his colleagues in the Bureau worked for two and a half years on this study, attempting "to discover norms, trends, and correlations which could be measured and stated as tendencies," in the belief that they "would have both a practical and a theoretical value." A considerable number of practical bankers aided with advice, but Dr. Secrist takes full responsibility for the results, and is, therefore, with his working colleagues entitled to full credit for the heavy amount of labour involved. The book may be roughly divided into two parts, the first in which norms and trends are sought in earning assets, deposits, gross earnings, operating expenses, and net earnings, and the second in which these various headings are correlated in different series; 216 tables and 54 charts summarise the analyses of the data at the several points of approach. Each Federal Reserve district is treated

separately, and then the district ratios are compared with those for the country as a whole. The period covered is the years 1919–25, and, if it may seem that this is too short for the discovery of norms and trends, it should be remembered that before this period there was a long banking history in the United States. It was, therefore, to be expected that uniformities would be imposed by experience on banking practice and that where they did not lie on the surface they could be exposed by suitable methods of analysis. It is also scarcely surprising that the trends and correlations discovered in the districts should be similar to one another, for, as Dr. Secrist points out, the twelve Federal districts are all connected commercially and the banks are subject to the same official regulation. "The state of business changes from year to year—not haphazardly, but with an approach to uniformity the country over." The antecedently probable fact is established analytically, "measures of general business oscillations being found in the fluctuations of bank debits."

Dr. Secrist says in his preface that the book "is intended to be consulted and used rather than to be casually read." It is, therefore, in the first place a handbook for the practical banker. Perhaps British bankers do analyse gross earnings and operating expenses for their own information as thoroughly as Dr. Secrist has done, but perhaps they do not; anyway, they publish nothing. Recently, however, there have been stirrings of the dry bones, and one would commend this volume to our financial authorities in the hope that they might go and, not necessarily carry out the same kinds of analysis, but, at least, furnish us with some more data necessary for the comprehension of the working of our financial system. A great deal of attention has been attracted by the recent publication in the *Midland Bank Monthly Review*, of the monthly ratio of current accounts to total current and time deposits in that Bank since the beginning of 1919, and there has been much speculation as to the significance of the declining trend from 1919 to 1929. Referring to Chapter IV of Dr. Secrist's book, we find that the ratio of total deposits to earning assets increased over 1919–25 both for the country as a whole and for the districts, that the ratio of demand deposits to earning assets trended downwards from 1919 to 1921 and upwards from 1921 to 1925, and that the ratio of demand deposits to total deposits had a downward trend over the whole period; the ratios of time deposits to earning assets and to total deposits increased over the whole period. Chapter X discusses various questions of correlation of earnings and expenses with deposits, but the economic significance of the trends just

summarised is left by Dr. Secrist to others to investigate. It is not suggested here that Dr. Secrist's results tend to show that there are peculiarities about the Midland Bank figures; they are quoted rather as evidence of the necessity of caution when partial figures are presented, or when it may be sought to draw from the comparison of the British and American figures conclusions unwarranted by the evidence. For one thing, it would be necessary to ascertain what part savings-bank business has played in the growth of time deposits in American banks; the precise meaning of "time" deposits at different places is also important.

It will be observed that no attempt has been made to "review" this book; to do so would require almost as much labour as its compilation. To indicate its scope and to show by an example how study of it might be useful appear to be sufficient. Further, no use has been made of the typed (or typed-printed) document thoughtfully enclosed by the publishers, and headed "Book Review." No doubt it was intended to assist reviewers, who, as everyone knows, are addicted to the casual reading for which the author says his work is unsuited; to give verisimilitude to the document its account of the subject-matter stops at quite an early page of the book. "Shockers" may require an attractive publisher's notice, but this kind of circular is of no service to Dr. Secrist. His task was a colossal one, and the value of the book will depend on the use that is made of it. In commending it to the notice of the practical banker, the reviewer intends to take the author's advice and keep the book at hand for consultation when the relation of banking to wider economic questions come under discussion.

HENRY W. MACROSTY

Investment Trusts in America. By MARSHALL H. WILLIAMS. (New York: Macmillan Co. 1928. Pp. 152. 6s. 6d.)

INVESTMENT trusts have long been known in Great Britain, but have only become popular in the United States since the war. "The American investor has shown himself as fervid on this subject as any other fad that has swept the country, and will find himself bewildered by organisations, called investment trusts by their promoters, which will take their toll of savings unless great care is exercised by buyers of their securities." The author takes the British investment trusts as his model and aims to guide American investors in the choice and building up of similar institutions. The individual investor cannot ensure safety in his

investments, but the Trust, by spreading its risks over a large number of securities of different kinds, enlists the law of averages in its support. Trusts may be general, covering all kinds of securities, or special—that is, restricted to particular classes of securities, such as oil shares. The latter require less skilled management than the former, for the investment remains permanent and the revenue is distributed on the participating shares held by the investors. The management of a general Trust, on the other hand, will always endeavour to shift investments from securities which are at their maximum value to investments which are undervalued and certain to appreciate. To make these changes with safety requires great skill and integrity on the part of the management, and the employment of an expert staff which is constantly studying international markets in securities. The profits of capital appreciation should not be, and in this country are not, distributed to the investors, but reinvested as reserves.

The would-be investor in Investment Trusts will find this book useful in deciding whether any particular Trust Company conforms to sound principles. The appendices contain much useful information about the leading American corporations of this class.

HENRY W. MACROSTY

The Plain Man and his Money. By A. S. WADE. (Nisbet. Pp. 128. 4s. 6d.)

THE author of this stimulating little book advises the reader interested mainly in the practical aspect of the Stock Exchange to turn at once to Chapter V. The advice is sound, since the first four chapters are sure to create confusion in the mind of the "Plain Man" for whom the book is written, and are irrelevant to the main purpose of the author. In the short space of fifty pages an attempt is made to elucidate the working of the foreign excnanges, and the reader is precipitately plunged into a cursory and highly controversial treatment of the financial policy of the Government, involving a return to the gold standard. It is difficult to treat the author seriously when he asserts that two ideals impelled the Government to expedite the return to gold: "one was to conciliate America by settling her debt and helping her to use her hoards of gold; and the other, less heroic, was to make our debtors abroad—those whom our investors had lent money to in sterling loans—pay us in terms of gold rather than depreciated pounds. All the bankers stressed the former and hid the latter; but in the City the latter was much more cogent than the former. One result of this policy—whether

right or wrong—was to give every loan which was in terms of pounds sterling an increasing value; as the sterling exchange moved up against the dollar, so did every loan in sterling rise in value. While the rentier took his holidays on the Riviera, the Bank of England and the Treasury were working for him at home, transferring to him values which had been built up by the citizen with few or no investments; taking taxation from them to swell the rentier's purse." No reference at all is made to questions of wider policy. The whole question is discussed in terms of a conspiracy between the Treasury and the banks to force upon the nation a policy involving her in serious loss for the sake of furthering their own interests and those of a relatively small section.

The same attitude is shown in discussing the part played by the banks in connection with financial policy at home. Bankers will be surprised to learn that "one of the things which bankers are very dogmatic about is the necessity of keeping up a high income tax, in order to maintain sinking funds for the redemption of debt." At the same time they "bargain the Government into a position where they must pay relatively high rates of interest on all new conversion loans. . . . While the advice of bankers has forced on the Government the heavy sinking fund responsibilities which keep up the price of their holdings, the banks have taken the greatest care that these prices should never rise high enough substantially to reduce the yield, or to make conversion a cheap operation at such dates as it has been possible." In this way the National Debt has been increased in spite of the existence of a fifty millions per annum sinking fund. That is, they have increased their income at the expense of the taxpayers. In another chapter we are told that "the rate of interest to be earned by money lent to trade is always better than the rate of interest obtainable on gilt-edged securities." If such be the case, it surely follows that the banks are not likely to perpetuate the burdens of trade in the form of high taxes for the sake of the income they earn on the Government securities they hold, even if it be admitted that they exercise so great control over the Government's financial policy. In Chapter IV a case is made out in favour of a fall in the rates of interest in the future. "All the conditions of the post-war decade were such as to decrease the loanable capital on the one hand and to increase the demand on the other . . . and in such conditions the specific rate of interest of our Government's borrowing remained high"; but these conditions having now passed away, the "compass is now

fairly set for a 4 per cent. rate of interest on 'long' Government loans." Here is a more reasonable explanation of the rise in gilt-edged securities during the past eight years, but it is hardly consistent with the argument in Chapter II that the rise was deliberately influenced by the banks.

The more practical section of the book, dealing with Stock Exchange practice, should be of real value to the plain man with money to invest. The functions of the jobber and the broker are explained and useful information is given as to the methods of the former by which he moves prices, and thus provides an opportunity to the intelligent speculator. The view that "a man following the advice of a careful stockbroker over a number of investments and speculations will invariably on the average get a good result," while interesting, is not likely to meet with general acceptance.

In discussing speculation the author's advice is sound. He advises speculators to distrust the rumours of the dull season more than those of the active season, and to inform themselves daily of the conditions of demand and supply in the Money Market, within the industry as well as of the shares on the market. "The art of investment consists in selling before other people have seen the wisdom of doing so and in buying in advance of the rush of buyers." Not the least interesting chapter is one in which the Long View is discussed. "Short-view speculation comes very near to gambling." Such is the get-rich-quick view, and is seldom profitable in the case of the small man. The long view invariably proves to be best on account of the fact "that the Stock Exchange invariably carries price movements too far at both ends of the stick, and that it carries them downwards by bigger steps than upwards, thus giving the wise buyer much better opportunities of getting very cheap shares." Investment Trusts are claimed to be supporters of the long view, and this method of investment is highly recommended, a warning being given against speculative financial enterprises which call themselves investment trusts, and small investment trusts which offer much too high rates of interest. This part of the book should do much to enlighten the public in the science of investment, and at the same time warn them against the pitfalls of the share pusher and bucket shop.

W. HAMILTON WHYTE

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Bristol.

Economic Problems: a book of selected readings. By F. R. FAIRCHILD and R. T. COMPTON. (Macmillan: Pp. 610. 12*s*.)

IN this collection of articles, produced by different authors and drawn from many sources, an attempt is made to present the diverse points of view taken upon some of the economic problems in the U.S.A. The volume is designed to enable first-year students of economics to get their teeth into controversial matter, and the hope of the authors is that such reading will give the student some practical examples of the operation of economic laws, encourage him to apply his general principles, and implant within him a deep suspicion of the truth of the written word. Regarded as a collection of documents which throw light upon the play of economic opinion in America, the book has interest, for the compilation has been made judiciously and without bias. A wide variety of subjects are covered, of which perhaps the agricultural depression and its remedies, the waste in industry, and Protection, are dealt with most completely.

But it is seriously to be doubted whether it would be useful to bring such a volume into the hands of a first-year student in economics. There is something rather naïf in the statement of the authors that they have only included economic problems "capable of solution by the student through application of the general principles which he has already acquired." To allow the student to meet the maze and apparent confusion of a dynamic economic world and to expect him to discriminate exactly between truth and untruth armed only with the frail lance of an economic theory bound up with assumptions of static conditions is similar to sending out a student of the pure principle of mechanics to fly an aeroplane. There is nothing to be gained by assuming that, in a developing society, every change can be simply explained by reference to economic theory or that the existing theory finds confirmation everywhere in the field of fact. There is much which perplexes even the skilled economist when he comes to study the working out of supply and demand in the business world, and, as Homan has so lucidly revealed in his *Contemporary Economic Thought*, there is a sharp and perhaps fundamental cleavage between the older, orthodox economists and those who are devoting themselves to what is now commonly termed institutional economics. Whilst this is so there is a good case for shielding the beginner from some of that uncertainty; for suggesting that economics has yet but a limited range or penetrative power in economic problems. For this reason the authors might have been well advised to include many more articles, similar to those by

Allyn A. Young and Irving Fisher, which give the student an example of the careful use of economic theory and a conception of its limitations in the solution of social problems, and to omit others, in which the fallacies are deeply entangled with the complicated processes under review, or the statements made little likely to be capable of test by the beginner in economics.

University of Manchester. JOHN JEWKES

Six English Economists. By T. F. KINLOCH. (London: Gee and Co. Pp. x + 76. 5s.)

EVERY book should be judged by reference to the intention of the author in writing it, and herein, doubtless, lies the justification of writing prefaces. Mr. Kinloch's slim volume, containing a brief account of six economists (Adam Smith, Malthus, Ricardo, Mill, Jevons and Marshall), is obviously written not merely for very elementary students, but also for such as may be "at a distance from public libraries," and the book is accordingly equipped with footnotes explaining exactly who such people as Rousseau, Pitt and Bacon were. To such tender-footed travellers Mr. Kinloch tells very simply something of the lives and the work of his six subjects. Nor can any one with experience doubt that there are students so simple that even the simplest of books may be as a staff in their right hand, and that notably many of our beginners may make wise observations regarding economic theory, and yet have but the vaguest (or no) idea of the conditions of the times or the manner of man in whose mind the theory originated.

The type of book which Mr. Kinloch has essayed is the most difficult of all in which to achieve excellence; and doubtless for this reason no one will be quite satisfied with what he has produced. A considerable part of his available space is taken up with biography, and these pages provide a sufficiently useful background, but the space left for the presentment of theory is too inadequate to allow anything of any great value to be said. And inevitably the vaster the subject, the more superficial is the treatment. The beginner, reading these few pages on that vast sea which is Adam Smith, will have but a hazy idea as to where Smith's importance lay, and will very properly be left asking why so much fuss has been made about him. On the other hand, he may carry away a not unjust idea of Jevons. Mr. Kinloch also at times forgets the elementary nature of the audience for whom he is writing. The student who requires Aristotle to be explained in a footnote will be rather put out by the summary transcription from Mr. Keynes of Marshall's eight original distinctive ideas.

A. GRAY

Pension and Superannuation Funds. By BERNARD ROBERTSON and H. SAMUELS. (London: Pitman and Sons. Pp. x + 134.)

THIS volume is chiefly to be recommended to those employers who have in contemplation the introduction of a pension or superannuation scheme for their employees. Without aiming at any degree of precision—for it is correctly emphasised that no two funds can be treated as identical—and without any great degree of profundity, the authors draw attention to the main points which the initiators of such a scheme ought to keep in mind, the principles on which pensions ought to be based, the peculiar position of the existing members of the staff and the methods whereby the difficulties inherent in providing for a small staff may be overcome. All these matters are clearly put; but at times it is difficult to resist the impression of a certain professional bias which tends to exalt a superannuation scheme into an end in itself. The authors rightly comment on the tendency to include in a scheme benefits other than benefits on retirement, of which, for example, a benefit on an earlier permanent breakdown in health may be taken as typical, and they further rightly say that such additional benefits cannot be had without reducing the value of the principal benefit. "However much we may," they add, "from a theoretical point of view, deplore the grafting of these subsidiary benefits on to the main stem, the practice . . . is by now too deeply rooted to be disregarded." But surely such additions, except from the point of view of the actuary admiring his schemes, are not properly to be regarded either as alternative or subsidiary benefits. They are, or some of them are, additions needed to give sense to the whole thing. The man is not wholly wise who insures himself for a weekly allowance on retirement at sixty-five, and who forgets that he may be permanently laid on his back at forty, for should the latter contingency occur, his efforts to insure himself will have damaged rather than have advantaged him. A scheme therefore which compels a worker to contribute towards a pension for old age, and which does nothing for a man broken in middle life, is not merely incomplete, but is definitely a wrong scheme, and there need not be even a "theoretical" deploring of its extension.

From the practical point of view the value of this book is greatly enhanced by a full discussion of the legal position as affecting superannuation funds and an appendix containing the relevant Acts of Parliament.

A. GRAY

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Administrative Powers over Persons and Property. By ERNST FREUND. (University of Chicago Press. 1928. Pp. i–ix + 620.)

THE legislative regulation of economic activity is beset with difficulties. Economic legislation has to work with indeterminate concepts. The Legislature may wish to check "unreasonable charges," "monopoly," "inadequate service," "unfair competition," "discrimination," etc., etc. But how can it formulate standards sufficiently definite to make legal control effective? If these indeterminate concepts are left to administrative handling, will a body of precedents accumulate from which they may emerge with legal certainty? Is it possible by a combination of administrative and judicial action to evolve a code of fair trading? Or the Legislature may try to regulate Public Utility Corporations. It may desire, for instance, that the Railroad Companies receive a fair return on the value of their property to the public service. But what is a fair return? What is this property? How is its value to be determined?

Under modern conditions, a policy of legislative regulation involves recourse to administrative powers in order to enforce it. In all the industrialised countries to-day the executive department of government, acting in a quasi-legislative or quasi-judicial capacity, interferes with the conduct of the individual in order to promote what is alleged to be the well-being of the community. In the United States, for instance, the tendency is for Congress to vest in Administrative Commissions power over personal and property rights. But what is to be the relation of these administrative agencies to the Courts? What are the proper limits of administrative discretion? How is it possible to ensure that the public power may not be abused for the furtherance of private interests? How are the demands of administrative efficiency to be reconciled with the adequate protection of private rights? Will the Commissions manage "to impress upon their findings that stamp of impartiality and disinterested justice which alone can give them weight and authority"? Will they succeed in answering complicated questions of economic policy by the method of trial from case to case with which we are familiar in the evolution of the Common Law?

Is it expedient to treat economic abuses simply as forms of crime? May not something more subtle, something more in the nature of mediation and influence, with authority merely in the background, be more suitable to modern conditions?

These are some of the questions which Professor Freund discusses. Surveying the various powers conferred on administrative

agencies by the Legislatures of the United States, New York, Great Britain and Germany and appraising the different types of administrative action, Professor Freund's monumental treatise is addressed primarily to legal students. It is, however, a mine of information for those interested in exploring the neglected border-land which lies between Law and Economics.

J. LEMBERGER

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William Huskisson and Liberal Reform. By ALEXANDER BRADY. (Oxford University Press; London: Humphrey Milford. 1928. Pp. 177. 12*s*. 6*d*.)

THIS book is not a biography; it is a survey of changes in economic policy. Primarily, it is a study of the character of those changes, not of the character of William Huskisson, although a good deal of light is shed upon the latter, as it seems naturally and inevitably, between the first page and the last. Around the figure of Huskisson the author has written an essay of considerable merit on an important late phase of the decline and fall of mercantilism in England. To the "general reader" Huskisson is known by the one dramatic incident in a life singularly free from dramatic incidents. The tragic circumstances of his death are still remembered, while his contributions to British economic policy a century ago, and his eminence as an early exponent of revenue-raising by scientific methods are in some danger of being forgotten. Mr. Brady's book should alter this, for he devotes five of its seven chapters to a thorough discussion of the corn laws; the first series of "breaches in the old commercial system" (especially the felling of those "flourishing oaks" of British mercantilism, the navigation laws); colonial policy in Huskisson's day, and the currency problem—the first important issue to bring out clearly "how much of the new economic science Huskisson had absorbed and how ably he championed its principles." In particular, Mr. Brady's handling of the intricacies of trade under the piled-up provisions of numerous Navigation Acts deserves commendation.

Huskisson, although a believer in thorough preliminary investigation and "the inevitability of gradualness," was no disciple of drift. On the contrary, he was a master of the art of steady plodding towards a given objective. Also he knew, as a rule, the best route in the circumstances, and when to rally his whole strength for the last lap. Thus, in 1824, when the

landowning interests saw fit to oppose his plan for allowing bonded wheat to be converted into flour and returned to bond prior to shipment to the West Indies, he urged successfully that the tubs, hoops, etc. which contained the flour "must be formed of staves taken from the demesnes of English gentlemen, and wrought into shape by the industry of their tenantry," instead of being made and sold at a profit by foreigners. In the following year, when Huskisson wished to carry the free importation of Canadian corn, against the fears and prejudices of the agriculturists, he stressed the importance of encouraging shipping, and startled the House of Commons with the bogey of the commercial rivalry of the U.S.A. Like Adam Smith, he had an imperial outlook—rare in his day—and shaped his policy accordingly. He had learned the lesson of the American Revolution so well that he was never in danger of repeating the errors of the statesmen of the preceding generation. "England," said he, "cannot afford to be little."

Huskisson's attachment to the doctrines of free trade was tempered by his leanings towards colonial preference and the fostering of imperial shipping. In the twenties, as Mr. Brady aptly remarks, "the sharp blade of the free trade argument . . . although Huskisson only used it in a crisis . . . was never far from his reach"; but his reluctance to grasp it in 1827–8 led him to support the sliding scale of corn duties—"a very defective contrivance" even from the British agriculturists' point of view.

Just as Canning held liberal views on most questions of national importance except parliamentary reform, so Huskisson, progressive as he was in other respects, became unduly alarmed in 1825 at the trade unions' powers of intimidation, which, in his opinion, interfered with freedom of bargaining. Huskisson supported free trade, not free trade unions; and he went so far as to say that it would greatly improve Benefit Societies if "some effectual mode could be devised of preventing their funds from being devoted to the support of mischievous combinations" (*Add. MSS.* 38,745 (215)). Francis Place paints Huskisson as possibly hypocritical, certainly lacking in sense and honesty, and "courtier enough to attempt anything likely to answer his purpose" (*Add. MSS.* 27,798; quoted by Wallas, *Life of Francis Place*, chap. viii). While Mr. Brady shows us clearly that Huskisson was anything but a rigid doctrinaire, he regards Place's hostility and censure as natural but unjust, and contends that Huskisson's attitude was, in fact, "in harmony with his general Liberalism." "Place's criticism of Huskisson," he says, "was

a case of the kettle criticising the pot for not being a kettle,'" for Huskisson was neither a Radical nor a social reformer.

The first breaches having been battered in the walls of mercantilism, Mr. Brady shows us Huskisson and "Prosperity Robinson" (afterwards Lord Goderich) as busy as strong vested interests and their party connections would permit at what List called their politico-economical jugglery, with the object of making more room in which British commerce and industry could expand. But the sharp financial panic of December 1825, and the resignation of Huskisson and the other Canningites from Wellington's administration in 1828, shelved further commercial and fiscal reforms for some fifteen years.

Mr. Brady disclaims all biographical aims, but it may be doubted whether a biography proper could add much that is material to the sketch of Huskisson which he gives us in this book.

ALFRED PLUMMER

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Some Contributions to the Economic History of Wales. By EVAN J. JONES, M.A., Lecturer in Economics, University College, Bangor. (London: P. S. King and Son, Ltd., Orchard House, Westminster. 1928. Pp. 197. 9s.)

THE title-page of this work and the modest preface diminish the expectations which might be raised by the words "The Economic History of Wales" impressed in gold on the back. It consists (1) of a series of essays or "monographs" on certain industries—including agriculture—the titles of the first five chapters being: I. *Agriculture: A Brief Survey*; II. *The Woollen Industry in Wales*; III. *The Growth and Decline of the Iron Industry*; IV. *From Coal "Patches" to Coal "Pits"*, V. *The Lead, Copper, Tinplate and Slate Industries of Wales*; and (2) of four Essays dealing with certain social conditions and movements mainly of the first half of the nineteenth century, the titles being: VI. *Labour Conditions and Unrest*; VII. *The Truck System*; VIII. *The Agitation for Political Reform*; IX. *Chartism in Wales*; (3) a chapter (X) covering a longer period on *The Shipping and Ports of Wales*; and (4) an eleventh chapter with the heading *Some Aspects of Changes in the Distribution of the Population.*

Finally, there is an index and a Bibliography which would be

more useful to later students if it were much fuller and still more if it were in some degree critical and of a nature to suggest the kind and quality of the contents of the works which are here barely named. This defect is partly remedied by the citations in the course of the work. Here, however, Mr. Jones seems to me to be much too grateful or generous towards his authorities, appearing frequently to adopt their statements and judgments rather than treating them as evidence for what they appear to be worth. One example may be given from the well-informed and interesting chapter on Chartism (p. 135). Here an analysis of explanation is quoted from the work "The Rise and Fall of Chartism in Monmouthshire" of the character of John Frost, the author being unnamed and perhaps unknown. Many readers would wish to know what Mr. Jones thinks of this explanation and of the personal "equation" of its author. Does he, for example, endorse and adopt as his own what are not manifestly more than the flourishes of a sprightly journalist, the references to "a crude mass of political lore of which the lucubrations of Tom Paine and the tirades of the 'North Briton' seemed to have formed a large component part"? Mr. Jones has every right to agree with certain of his authorities; but his readers have also some right to have his reasons for doing so.

The period covered varies considerably from chapter to chapter, partly from the nature of the case and partly in accordance with the sources available to the author. An indication of the questions or problems which had arisen from time to time, and which he had been able to resolve or compelled to abandon, would have made the work much more instructive and stimulating to the student. Mr. Jones's wide range of subjects and his interest in general matters, as shown notably in his first and last chapters, give him an advantage over the writers of long monographs on particular industries, who, often against their wish or design, give the impression that they regard the "development" or "prosperity" of that industry as an end in itself. Economic and social theory play too modest a part in Mr. Jones's treatment; and the frequency of this defect in historical work makes his manifestation of it not less regrettable, though more excusable.

Except in expressly quoting authorities, I think that Mr. Jones should give the modern spelling of place-names, and I would include emphatically the modern Welsh spelling, especially when it has come into general use; for example, Lwchwr for Llwchwr is perhaps a mere misprint—(p. 69), Panteg, not Panteague. A difficult problem, again, which Mr. Jones has not entirely solved

is that of making narratives involving reference to places, easy for a stranger to those places to follow.

At his best, and when authorities do not overwhelm him, Mr. Jones writes well, and there are many parts of his work which I would recommend to students as thoughtful and wholesome in a high degree. I am particularly pleased with the last chapter, though not, of course, equally with every statement contained in it. It awakens or sustains the hope that an economic history of Wales will come, and that it will increase the intellectual resource and mastery of those who study it.

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The Beginnings of Local Taxation in Madras Presidency. By M. VENKATARANGAIYA, M.A., Andhra University Series, No. 1. (Longmans, Green & Co. 1928. Pp. xii + 107. Rs. 3.)

THIS little book is the first instalment of an important work on Local Government in Madras Presidency contemplated by the author. It covers the legislation of the period 1863–71, by which the existing local governing institutions were initiated in forms which have had to undergo much modification and development since. It should be followed later not only by volumes tracing the course of that later development, but also by one or more tracing the relationship between the new institutions and the earlier ones of native growth which they partly supplemented and partly displaced.

Mr. Venkatarangaiya shows that the main motive prompting the Central Government in the legislation which he discusses was its need of supplementing its financial resources. The Indian revenue was extraordinarily inelastic. Excise produced only some £2,000,000 per annum, being limited by the religious ban on alcohol; Customs, with Lancashire insisting on free imports into India, but little more; income taxes were found difficult, unpopular and unsatisfactory, and India was not ripe for death duties. A considerable taxable surplus existed in the unearned incomes of idle landowners like the zemindars of Bengal, but these were guarded by Permanent Settlement, the evil legacy of Francis' hate of Warren Hastings. On the other hand, increased expenditure was imperative. The Mutiny had doubled the debt. True, the military reforms it brought about were effected without any addition to the military expenditure, the cost of increased pay to all ranks, improved barracks, and a small addition to the

British troops being more than covered by the great reduction in the total numbers. But with the coming of Crown government a levelling up of the standard of administrative efficiency was demanded; and the urgency of the need for road-making, extension of railways, irrigation canals, postal and telegraph facilities, to say nothing of larger provision for education and of a beginning of urban sanitation, had to be recognised.

In these circumstances efforts at decentralising finance and, in consequence, administration also, appeared the only possible solution, and the creation of municipalities for even small towns and large villages of 5,000 population and upwards was attempted. Naturally, if perhaps unfortunately, the type of institution created followed German rather than British lines, services to be undertaken by the local authority being mainly compulsory. There was also much fear that the inhabitants of the municipalised areas would cling to old abuses rather than welcome novel and expensive improvements, and so recruitment of local councils was by nomination rather than by election, and all activities were rigidly controlled by the officers of the Imperial services.

Mr. Venkatarangaiya has told his story so far lucidly and with obvious care for accuracy and impartiality, and this first instalment warrants the hope that his whole plan will in due time be executed completely. Mr. C. Ramalinga Reddy, the Vice-Chancellor of the Andhra University, who supplies an introduction, calls this volume " our first tiny flower for India's culture garland." The creation of the Andhra University is the outcome of the union of the aspiration for cultural advance in the Andhra (Telugu-speaking) country, which produced the village libraries movement, and the literary and dramatic revivals of the years before the war, with the vigorous political movement which created the powerful Non-Brahmin party.

In financial resources it is possibly the smallest and weakest, as well as the youngest, of the universities within the British federation, and Mr. Reddy and his syndicate are to be congratulated on their courage and wisdom in embarking immediately on the policy of publishing sound and useful works, without aiming at too ambitious a standard. The great deltas of the Krishna and Godavari, where Arthur Cotton first showed the world what scientific canal irrigation is and can do, form one of the most hopeful districts of India, one which breeds young men with generous instincts, ready to respond to enlightened leadership, and of this fact the Vice-Chancellor of the Andhra University is fully aware.

G. Slater

NOTES AND MEMORANDA

Uncertainty-bearing and the Income-tax

§ 1. The present paper proposes to inquire into the "announcement effects"[1] of different schemes of income taxation on the distribution of productive resources between safe and risky investments.

The basic idea of this analysis is the ranging of uncertainty-bearing among the factors of production—much in the manner suggested by Professor Pigou in Appendix I to his *Economics of Welfare*—and assigning to it a marginal productivity of its own. Since exposing a certain amount of wealth to a certain risk must be held to involve a specific disutility apart from the abstinence involved in parting with immediate consumption, we may expect that investors in general will be prepared to undertake "productive uncertainty-bearing" only when offered the prospect of a higher *average* reward from risky investments than from safe ones.[2]

Taking the disutility of uncertainty-bearing into account, it may be laid down that there is a certain point up to which the taking of certain risks will increase the national dividend. Thus, from the point of view of maximising the national dividend, there is an ideal distribution of productive resources between occupations of different degrees of safety.

§ 2. To start with, the effect of a strictly proportionate income-tax will be considered.

Suppose the normal mind is represented by a person equally willing to invest a certain amount of capital for a sequel of years in some perfectly safe manner, yielding an annual revenue of 5 per cent., and in an enterprise where it is exposed to an equal chance of an 8 per cent. loss and a 20 per cent. gain in any one year.

What, now, will be the effect of a 10 per cent. income-tax?

The safe investment will yield a revenue of 4·5 per cent., and the risky one will give, in one of the fat years, a net revenue of

[1] This expression was borrowed from Professor Pigou's *Study in Public Finance*, p. 73 *et passim*.

[2] Pigou, *Economics of Welfare*, 2nd ed., p. 730, footnote.

18 per cent. But the loss in one of the lean years will still be 8 per cent., and the annual average, therefore, will now be no more than 5 per cent. The premium of 1 per cent. for the riskier investment is thus reduced to ·5 per cent., and in all probability this smaller premium will cause a smaller part of the annual flow of capital to go into risky undertakings. And the effect of this is necessarily a lessening of the national dividend.

If the proportionate income-tax were fixed at 20 per cent., both investments would yield the same average net revenue of 4 per cent., and no extra reward would be had for the trouble of taking the risk in question. If the rate were as high as 30 per cent., the premium would be changed into an actual fine, the safe investment yielding an annual revenue of 3·5 per cent., the risky one 3 per cent. on an average. In this case, taxation would have changed a productive uncertainty into a pure gambler's risk, and we may assume that next to nobody would care to run it.

§ 3. It will be observed, however, that the reasoning of the previous section holds good only of risks implying a net loss in any one year. It is improbable that this is a very common type of business risk. And as soon as the choice is between a small net gain and a large one, say 2 per cent. and 10 per cent. per annum, a proportionate income-tax will inflict a cut in the reward of uncertainty-bearing no larger than that to which all incomes will be subject.

But if there is an exemption limit, incomes below which are not touched by taxation, a proportionate tax may differentiate against risky investments in a larger number of cases. Suppose the sum of money to be invested is £4,000, the annual revenue of the safe investment being £200. The risky investment, we shall suppose, yields £80 in one of the lean years and £400 in one of the fat years. If incomes below £160 are exempt from income-tax, a 10 per cent. tax on all income above this limit will take £4 off the income derived from the safe investment, but £24 off that of the risky one in every fat year, leaving the lean year revenue of the risky investment tax-free. Since we have assumed the chances of the latter to be of the fifty-fifty variety, the average annual tax-burden in this case will be three times as high as in the case of the safe investment. Thus, while if there were no income-tax the safe investment would yield 5 per cent. and the risky one 6 per cent. annually, these percentages will be reduced by a 10 per cent. income-tax to 4·9 per cent. and 5·7 per cent. respectively, reducing the reward of uncertainty-bearing from 1 per cent. to ·8 per cent.

§ 4. The next step is to inquire how a progressive tax will work in respect of differentiation against uncertainty-bearing. The type of tax we shall have to consider is one under which different parts of the same individual income are taxed at different rates. One rate, *e.g.*, will be applied to the part of income below £160, another one to the part between £160 and £500, and still another one to the part between £500 and £900, etc.[1] In this case differentiation will take place as soon as the fluctuation of incomes from the risky investment is large enough to place the income of different years in different income classes. If the incomes in question belong to adjacent classes, *e.g.* to the £160–£500 and the £500–£900 class, this is obvious. But the same thing will be true even of incomes belonging to classes separated by one or more classes. For it will mean that one part of the fat year income will be subject to a higher tax rate than if incomes of different years had been less dispersed around the average, while no income is subject to a lower tax rate than it would be in case of a smaller dispersion.[2]

§ 5. The preceding analysis has given the answer to the question how these several systems of income taxation compare in respect of the degree of differentiation against uncertainty-bearing they imply.

(1) A strictly proportionate tax will differentiate only in the case of very risky undertakings, so risky as to involve the probability of a net loss in any one year.

(2) Introducing an exemption limit into a proportionate tax system means extending differentiation to all cases where the income of any one year is so small as not to exceed the exemption limit.

(3) A progressive tax means differentiation in all cases where the incomes of different years fall inside different income classes under the taxing scheme.

There remains one question to be answered: What alterations *inside* one of these tax systems will increase or diminish differentiation against uncertainty-bearing?

In answering this question we have to distinguish between

[1] A progressive tax of a type subjecting the *bulk* of an individual income to a higher rate of tax, should it exceed a certain amount, than that applied to the bulk of an income not attaining this limit, may be ruled out, since its announcement effects would render it impracticable.

[2] If a scheme of the type described in the above footnote were practicable, the higher tax on the higher income might be compensated by the correspondingly lower tax on the lower income in such a way that no differentiation whatever would take place.

two ways of increasing and diminishing differentiation, viz. as regards *intensity* and *extensity* of differentiation.

(1) If the rate of a proportionate tax is raised, this will intensify differentiation; it will increase it in the cases where it exists already. But no raising of rates can extend differentiation to comprise a larger number of cases.

(2) If the rate of a proportionate tax with an exemption limit is raised, differentiation will be intensified. And if the exemption limit is raised, differentiation will be extended to cases where it did not exist before.

(3) A progressive tax will differentiate in a larger number of cases, the narrower the limits of the different income classes. And differentiation will become more intense the steeper the progressiveness of the tax rates.

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LARGE-SCALE PRODUCTION

NOTE ON PROFESSOR YOUNG'S ARTICLE ON INCREASING RETURNS AND ECONOMIC PROGRESS

PROFESSOR YOUNG derives from Adam Smith's dictum regarding the limit of division of labour the implication that division of labour begets division of labour. In the same way, taking an inclusive view of the producing-consuming organism, it can be shown that large production begets large production; or that in dealing with the limits of large production an important consideration is the amount of that large production. The elusive optimum productivity might here receive some illumination, and we may also be afforded some glimpse behind the scenes of the law of concentration that Gide takes so much pains with. For this law takes the form not merely of intension, but also of extension: much can be ascribed not just to the intension of wants or types of industrial organisation, but also to the extension of the principle of mass production to "non-concentrated" organisations and to wants whose satisfaction is not a priori susceptible to such production. Mass production is contagious. The gravamen is that the more one organises on a large scale the more one wants to and may be needs to.

The a priori nature of the older economic analyses made of large-scale production the contribution of a static solution to meet a static situation in the same way as it made profits and interest to consist in a static periodic surplus. But the relevance of

large-scale production is in its growth and not in its design. The attempt to cut out the two and paste them in a scrap-book distorts the whole matter. Large-scale production is but one aspect of economic inter-relationships and is symptomatic rather than original.

The fundament of large production is that men have wants in common together with common ways of regarding the satisfaction of these wants. I not only want shoes, but shoes of a particular pattern. If there are thousands of others like me, then large production is possible and, under a régime of tentative pushings, almost inevitable. And the movement gains impetus of itself. There is a whole gamut of wants that men have *ex natura*, the manner of whose satisfaction would appear to remain largely a matter of indifference. But the common wants are, in each individual, melted into peculiarities to synchronise with whole realms of æsthetics, hopes and hard "artificial" necessities. Consequently the whole possibility of large production will depend upon the presence in individuals of common tracts of opinion and outlook. It is opinion working a want that moulds a want, as any approach to a theory of prices will evince.

It is the expectation of satisfaction allied to an opined method of obtaining it which moves demand. In so far as demand manifests itself it is in relation to some fixed commodity or type of commodity, and between the expectation of some utilitarian "grace" and its fulfilment stands the "sacrament" of the commodity. The grace determines the sacrament. Equally true is it that the sacrament gives form and determination to the grace. When, therefore, people have wants in common it is no necessary criterion of the possibility of mass production. Ere that arrives we must have a coincidence of sacrament. We must not only all want arrow-heads, but arrow-heads as made by warrior A. Not even our common mother-nature-wants necessarily garb all individuals alike.

The effect of men living together is twofold. Mother-nature-wants tend to be moulded to fit a common groove of expression, in many cases comparatively easily accomplished. With this togetherness arises, further, a modification of our wants themselves together with their amplification by wants in common and already commonly expressed. Individuals pool their notions of worthwhileness. Social life demands a certain commonness, whether as an inexorable compromise, a happy coincidence of notions or a willing subjection. It is, further, the medium of additional wants. Not all of these are necessarily *ab initio* common and

commonly expressed. Side by side with an increasing standardisation of grace and sacrament grows a maze of multi-various "luxuries" and means of intenser living—offerings to the uniqueness of the individual.

We would confine ourselves here to the province of standardisation as affected by the coming together of people. This coming together is an aspect of population, of transport development and (by no means the least) of the increased spreading and infiltration of ideas. Grouped in associations, men increasingly rub shoulders, and the exigence of a common basis of living spreads to more intimate and extensive tracts of the individuality. Individualities and localisms are sunk in a larger pool of national and international, social and economic associations. In these associations men are moulded to particular patterns, and themselves, in terms of the grouping of power, design or amend that pattern, So taught and teaching, moulded and moulding, men strike out standardised demands for government, for no more war, for boots and for coal. So grouped and habitualised, men come to common opinions on organisation, on loving and on chicken-breeding.

Given a measure of large production, that measure becomes a dominant tint in the social picture. It becomes a part of the very nature of individuals to accept its implications. The accommodation of their spirits to the structure which gives them livelihood makes this measure of standardisation inevitable and even good. The stature of the standardised commodity appears expedient and then worthwhile. This remains so as long as the system of mass production implied "works" or "pays." Thereby a firm standardised rivet is hammered into the individual. His accommodating himself to others is consequently facilitated, whether as regards the institutions of production or in the demand in common for specific goods. That is, the increase in the individuals of standardised tracts of opinion or notions of worthwhileness is expedited. No amount of bitter invective can overcome the fact that a large trust or cartel, to have developed, must have been apt and potentially workable, and becomes in consequence an intimate part of that economic structure which results in wages as they are, commodities as they are, and wants and satisfactions as they are.

Nor does this standardisation necessarily imply "rationalisation." It is not rational nor does it work a priori. An economic system which found large measures of its inception in the hands of a philosophic midwife who relegated to each individual the working out of his own happiness, now works on the basis of an habitual and

standardised faith on the part of the individual in others. Large production, as Professor Young points out, is by no means necessarily Mussolini work. The production of a Gothic cathedral was not the work of a master mind so much as the habitualised co-ordination of the work of generations and groups of workers bound together by large-scale thought-habits and standardised æsthetics and constructional theories. Each did his part in the scheme of a whole which itself was the expression not of some architectural entrepreneur, but the group consciousness—that is, the standardised common basis of living of those concerned in the product and wrought throughout the togetherness of many generations. Large production necessarily implying a dictator is a conclusion based on the old static conception of the entrepreneur, the great leviathan, who arranges and disposes. The great leviathan actually is society, which erupts from time to time in singular foci of power and density in the aptness of certain individuals to interpret and dominate in particular spheres. These men are themselves but a part of the whole organism. An industrial unit, by remaining organised on a comparatively small scale, does not lose thereby the possibilities of large production—it may even be pushed to it. An increase in the standardised demand for its goods, together with standardised notions of individual organisation and the habitual togetherness of parts of an industry (perhaps to be considered best as an organic relationship), would lead to, and does lead to, its taking a part in producing analogous to the wood-carver producing Ulm Cathedral.

Appetite comes with eating. In the living together of people man pools his energies as a rule of efficient economy. This enhances the possibility of common bases of worthwhileness and therefore breaks the way towards mass production. Mass production is a social effort which, while relying upon the concentrated nature of society, itself concentrates society. It is an aspect of the producer-consumer organism, and actual or "rational" dictators of organisation can only find place in the workability of this organism. This particular development is not a priori necessary, although no final conclusion as to this, as to the optimum efficiency or a maximum rate of progress can be given at the present stage of expert analysis.

W. L. Kendall.

University of Sheffield.

Official Papers

Final Report of the Committee on Industry and Trade. (The Balfour Committee.) (Cmd. 3282. 5*s*. 6*d*.)

This volume concludes, largely by way of summary, what is probably the widest survey yet undertaken of British industrial and commercial conditions and prospects. In six previous volumes the Committee has supplied, from the archives of Departments and its own deliberations, a mass of information so great and varied that, even with the aid of valuable introductory reviews, it can be only gradually absorbed as material for verification or criticism of economic theory. It is a tribute to the value of their labours that 22,000 copies have been sold, and that the demand continues. They suggest, in this volume, the further issue of selected parts by different Departments. I think, however, that the public, the industrial community, and economic students will be willing to call "enough"; and that only because this volume presents, with sufficient brevity for so extensive a survey, the final outcome of facts and conclusions.

A number of different reforms might, after such an inquiry, be pointed out as advisable here and there, to be taken up by one authority or another, public or private, from the side of capital or of labour: but the conclusion which is reached is a general one, calling for a more active grasp and anticipation of influences partly due to the war, partly to the fullness of time and maturity of development, and therefore for a revision of attitude and outlook. This is especially the case with the forces which in part make for and in part call for the spirit of combination; and the most pointed conclusion that is drawn is in relation to "reconditioning" or rationalisation, as applied both to organising technique and the relationships of labour and capital.

This confirms the general movement of economic thinking in the nineteenth century, which has had to re-think the problems of monopoly, under the pressure of historical evolution. Disappointed in competition, though not quite off with the old love, it is making up to a rival who has some of the admired features, but seems to be more dependable in her ways. A majority of the Committee think her authoritativeness not dangerous, if combined with British character. In other words, they do not think that any special Tribunal is required in this country to supervise the monopolist tendencies of rationalised industry. Nor are they in favour of the suggestion to register as "Public Corporations,"

under certain conditions, businesses which have attained a certain size. A minority regard such a position as unstable; the argument is unsettled, and no one would prophesy how it will stand in another decade.

Partly dependent on this is the recommendation for publicity of data. Beyond that which will be required for the observation of the use made of their position by combines and protected industries, the Committee desire a regular annual publication of some of the fundamental indices of industrial activity and welfare, with a five-yearly comparison and analysis.

The reference of the Committee was to the export trade, though it is obvious that exporting power is involved with efficiency as a whole. Perhaps the main *special* conclusion on their reference is that, where an industry sells through merchants, manufacturers should not thereby consider themselves absolved from visiting their own markets. partly to estimate intermediate costs, partly to know what is going on. A greater control from the manufacturing end, in such industries, has often been urged as a safeguard against variations in style which are attractive to merchants, but often cause excessive fluctuations in industry. The Committee note a tendency towards increase in direct selling; and think there is scope for a measure of joint selling in export trade. The U.S.A. has shown that the measure is very considerable.

The greatest problems on the labour side are mobility and demarcation, and on the latter the Committee speak very strongly, in view especially of post-war conditions. They do not think that insurance against unemployment has increased the evil, and find that the United States has not been appreciably better off in that way than ourselves. They do not support Family Allowances, or regard Profit-Sharing as applicable to the unsheltered trades. They are strong for the maintenance of the voluntary principle in industrial relations, which means the rejection of the plan to give compulsory powers (with one exception) to Joint Industrial Councils. And they are doubtful if a National Industrial Council will serve a useful purpose, holding that annual conferences would be sufficient.

Both because of the nature of their reference, and of the accidental way in which our recent tariff policy has been framed, the conclusions of the Committee in the first and last sections are of special interest. It is suspicious to find this general approval of a *status quo* which has been arrived at casually. Though they endorse the findings of the Geneva Conference that

tariffs have gone too far, the force of this is diminished by their defence (from which a minority dissents) of all our own new tendencies towards protection. Our "national type" of tariff they define as one based on revenue, preference and defence. They reject such elements in other types as retaliation, bargaining tariffs, and tariffs based on differential labour costs. Nothing is left for other types except the "strengthening of the position of the manufacturer in the home market," as to which they hold there is no conclusive body of doctrine, and no conclusive evidence to be drawn from the recent history of our protected industries. If this is so, it must be open to doubt whether the Geneva Conference was right. In reply to a minority who desire to sweep away the Key Industry and Safeguarding duties, the Committee changes its ground to the desirability of a stable tariff policy. This is valid only within the condition that the policy is economically sound, and is not a reply to an analysis of unsoundness. And the defence of the *status quo* is carried very far when, having argued at some length that it is "neither defensible in theory nor feasible in practice to frame our tariff policy with the object of neutralising international differences in labour costs," they advise that the Safeguarding Committees should "in any revised procedure have unfettered discretion as to the weight to be given to this factor in any particular case."

The conclusions of an important Minority (on the general findings) is that the whole task of reconstruction requires a more extensive public control, focussed in two bodies: a National Economic Committee, whose instruments would be the scientific use of economic knowledge in forming general policy and publicity; and a National Employment and Development Board, which would be the Executive of that policy. This conforms with the conclusions of other recent inquiries into national industry, and the argument of the Final Report is in many ways so tentative that such a proposal cannot be excluded as extreme.

D. H. MACGREGOR

OBITUARY

PROFESSOR ALLYN A. YOUNG

ALLYN ABBOTT YOUNG, Professor of Political Economy in the University of London, died suddenly at Kensington in the early morning of March 8, 1929, from an attack of pneumonia, supervening upon what appeared to be merely a mild case of influenza.

By his death on alien soil at the early age of fifty-two, a great career was brought to a tragic end, and high adventure sealed with the impress of disaster. For Young, though in so many respects the antithesis of the "typical American," as the Englishman unfamiliar with the United States is tempted by tradition, fiction and the film to sum him up, possessed at least one American characteristic—a willingness to risk translation to new surroundings and new tasks which took him first from the Middle West to California, thence to the two great Eastern Universities of Cornell and Harvard, and finally to London and to his death. Called upon, the first American to hold a Chair of Economics in an English University, to follow one of the most trenchant, brilliant and original of living economists, Young succeeded in the short space of eighteen months in grafting upon the living tree of London economics his own characteristic outlook, helped in this, as in his relations with colleagues and students, by a unique combination of personal charm, profound scholarship and an almost embarrassing modesty so far as his own achievements were concerned.

Born in the Middle West, of New England parents of pure British descent, Young was educated at Middle Western institutions, taking his doctor's degree at Wisconsin. He did not at first adopt an academic career, but, once started, he enjoyed an extraordinarily wide experience, holding chairs successively at Leland Stanford, at Washington, at Cornell and at Harvard, leaving the last University in 1927 to succeed Prof. Cannan at the London School of Economics. It may be doubted whether he would ever have stayed in London permanently. Harvard never ceased to hope that he would return, and his great reputation resulted in his receiving an almost embarrassing succession of offers from other institutions. At the time of his death, indeed, he was facing what he himself regarded as the most difficult decision of his career—whether to return to Harvard at the end of the three years for which he had pledged himself to London, or to accept a princely offer from Chicago, which would have afforded him the leisure for that systematic writing to which he had only very recently felt himself impelled. He had, in fact, in the last few months begun work upon a systematic treatise on economic theory and had resumed the writing of the work upon monetary theory which he had begun at Harvard.

For such systematic writing Young was admirably equipped both on the intellectual and the practical sides, and if the world has been robbed by his premature death of works which might

permanently have enriched the science, the fault perhaps lies in certain defects of temperament. No one who was brought into contact with Young could fail to be struck with his perfectly astonishing range of knowledge, which was not in any way confined to those technical disciplines which fall within the somewhat loose confines of economic science. He seemed as much at home in the fields of pure mathematics, general scientific methodology, metaphysics and political science and ethics, as in the fields of statistics and mathematical economics, the history of economic doctrine and the more specialised aspects of international trade and money. His practical experiences of men and things had also been very wide : he had been associated with the work of the U.S. Bureau of the Census and the problems of the American fiscal authorities, had been head of the Economic Section of the American peace delegation at Versailles, and had worked with Jeremiah Smith in Hungary, serving later also on the Consultative Committee of the League of Nations. He was an honoured collaborator in the work of the Harvard Economic Service and had been in close touch with the problems and the authorities of the Federal Reserve System from its very earliest days. Seldom, indeed, can it have happened that so catholic and scholarly a mind should have had so many opportunities of enriching itself by contact with practical problems and with eminent personalities in the world of events.

The experiences were too wide, the stimuli too many, when combined with Young's personal qualities, to make systematic writing easy. It would be the grossest injustice to his memory to suggest that he was unable to make up his mind : the trouble was that he was unable to concentrate his interests and to confine himself for any length of time to a single range of problems. A passion for thoroughness would drive him on to explore every inch of the field in which he was for the time being interested : he was always convinced that economic truth was not the monopoly of a single school or way of thinking, and that the first duty of a teacher and thinker was to see the strong points in every presentation of a point of view. Such an attitude of mind, combined with great personal modesty, made for unsystematic writing : for scattered papers and articles and not for a comprehensive treatise. In many respects he resembled Edgeworth, for whose work he felt a growing admiration ; and if Young's work is ever collected, it will be seen that, like Edgeworth's, it amounts in sum to a very considerable and impressive achievement. Meanwhile there are available the selection from his published papers

which was issued under the title of *Economic Problems, New and Old* in 1927, and the invaluable technical compilation, the *Analysis of Banking Statistics for the United States* which the Harvard University Press produced in 1928: a permanent contribution to its subject and at the same time a witness to Young's interest in the practical problems of banking and currency. In the realm of pure theory, Young was moving towards a new mental orientation: the detailed minor problems which had hitherto interested him were beginning to recede and were making for a new synthesis: under the inspiration of Cournot and Pareto—and among the younger generation of Dr. Sraffa—he was inclined to regard the treatment of specific problems, "other things remaining the same," as definitely wrong.

The very qualities which made it difficult for Young to undertake systematic writing made him a great teacher and colleague. Until one had come into personal contact with him, it was not easy to understand precisely how his great influence in the American economic and academic world had arisen; these difficulties vanished on acquaintance. Allied to a massive and vigorous frame, a most imposing and attractive cast of countenance, was a charm of manner and an easiness of bearing which made it possible at once to enter into friendly relations: and Young understood, as all great teachers do, the art of bridging the gulf which differences of age and of reputation set up between the master and the pupil. He was easily—in his own interest all too easily—accessible both to his own students and to his colleagues, and was at all times ready to put his extraordinary stores of knowledge at the disposal of anyone who sought his advice: with the result that probably no living economist has had as much influence as Young had through the spoken, rather than the written word. And so, though he founded no school and has left no single outstanding achievement behind him, Young nevertheless has profoundly influenced the present temper of economic thought in the United States, through the impress of his striking personality and hard thinking on the minds and hearts of the young economists who flocked to him at Cornell and still more, at Harvard.

For Harvard and for Harvard men Young had an affection and an interest which reflected the deepest impulses of an essentially generous nature. He came to Harvard in early middle-age, at the very height of his powers, and the glamour and the traditions of the greatest of American Universities stimulated and warmed him as, one imagines, no other influence had previously done. Only those who knew him at Harvard can appreciate the com-

pliment he paid the English world of learning when he accepted the Chair of Political Economy in London, for in many ways he occupied an absolutely unique position among professional American economists. For an English Chair he possessed many qualifications, chief among them being a profound knowledge and appreciation of the English classical economists : his interest in monetary and international trade problems had led him to a close study of Ricardo, while for J. S. Mill's work he had a sympathy which is now rare. An English environment suited him, and he appreciated to the full such honours as his colleagues could bestow on him : honorary membership of the Political Economy Club and the Presidency of Section F of the British Association. His relations with his colleagues were of the happiest kind, and he had thrown himself heart and soul into the life of the London School of Economics, for whose further development, especially as a centre of post-graduate economic teaching, he nourished ambitious plans.

Young married in 1904 : his wife and son survive him. His English friends, and not only those whose privilege it was to enjoy their gracious and easy hospitality at Harvard and in London, will desire to extend their sympathy to Mrs. Young and her family. A large and impressive congregation assembled at the Memorial Service at the Church of St. Clement Danes on March 11 to do honour to his memory; economic scholarship has lost one of its masters and the great cause of Anglo-American friendship one of its most powerful supporters.

T. E. GREGORY

SIR R. HENRY REW

THE death, on April 7th, at the age of seventy, of Sir Henry Rew removed one who, both in his official career and in the possession of certain almost unique attributes, may be likened to another illustrious "Rural Economist"—Arthur Young. The suitability of each to his ultimate calling was first demonstrated in the capacity of outdoor "Reporter." Young's articles upon the state of Agriculture, investigated county by county, brought him, at the age of fifty-two, to London in the capacity of Secretary to the newly-formed Board of Agriculture; Rew, also in middle life, entered the Department of State bearing the same title as a direct result of the work he had so ably carried through as an Assistant Commissioner to the Royal Commission on Agriculture. Prior to this he had been in turn Secretary to a Breed Society,

to the Central Chamber of Agriculture and to the Local Taxation Committee. Anyone who has read his Reports to the Commission, *e.g.* those relating to the counties of Norfolk and Dorset, will agree that he possessed to a remarkable extent the ability to describe accurately and in a manner to compel interest all the many factors that range themselves under the term "rural economy." Thus, such diverse subjects as price levels and purchasing power, bimetallism, land-tenure, taxation and transport all figured in his reviews; he possessed, moreover, very considerable knowledge of farming practices in different parts of the country. Thus admirably equipped, it was inevitable that his subsequent career should have been that of a highly successful Civil servant. At first in charge of the Statistical Branch of the Board, where he fostered and developed the already remarkable series of returns, he was, in 1906, promoted Assistant Secretary, a post which carried the supervision of such, to him, congenial undertakings as tithe, enclosures and commons, involving, too, much more of human and economic interest than is conveyed by the official titles. The war inevitably brought to him numerous obligations. A preliminary Census of food supplies was one of his first undertakings; thereafter, he was successively Secretary to the Ministry of Food, Chairman of the Grain Supplies Committee, of the Allies' Wheat-purchasing Committee, a Member of the Royal Commission on Wheat Supplies and, finally, Deputy-Chairman of the original Agricultural Wages Board, where the administration of a principle entirely foreign to agriculture involved delicate handling. It is undoubtedly true that the work of all these war-time bodies concerned with the supply and control of labour, land and food (human and animal, home-produced or imported) was greatly facilitated, and in some cases only made feasible, by the adequacy of the statistical information that had, in times of peace, been collected on Rew's initiative. Appointed a C.B. in 1912, he was created K.C.B. four years later. In 1921 he retired from the Civil Service. Unofficially his interests were mainly statistical, and, in this connection, it is perhaps noteworthy that his name never appeared in the pages of this JOURNAL, either in the capacity of contributor or reviewer, although his own writings were frequently of an economic character, and, as such, were the subject of flattering notices by other persons. He was the author of a valuable text-book, entitled *A Primer of Agricultural Economics*, and in both the *Story of the Agricultural Club* and his *Agricultural Faggot* he wrote with discernment and ability upon the historical, social and

economic aspects of agriculture. For nearly twenty years he was Honorary Secretary of the Royal Statistical Society; he received the Guy medal of that body in 1905, and was its President in 1920–2. His technical knowledge safeguarded the official agricultural statistics from any dangers that threatened without the Board, and within it he was able progressively to increase their value, while his prefaces to their annual presentation in type were models of what such interpretations should be. The Agricultural Club (an unofficial offshoot of the Wages Board), Section "M" of the British Association and, finally, the recently formed Agricultural Economics Society, of which he was President last year, all gave Rew numerous opportunities to demonstrate his width of knowledge, his judgment and, above all, his intense affection for all those many interests that are embraced in the term "British Agriculture." Many of the proposals put forward in connection with food supply and the control of the industry during and after the war must have greatly shocked him, but he never showed any trace of personal feeling, and those engaged in ephemeral Departments whose activities overlapped his own were always assured of a welcome from one ready to place at their disposal both advice and assistance. Agricultural economists are not a numerous body, but, whether originally detached from the study of agriculture, history or economics, they will, both individually and collectively, deeply regret the passing of one who set an exceptionally high standard in their diversified calling.

J. A. VENN

CURRENT TOPICS

THE following have been admitted to membership of the Royal Economic Society:—

Ahmed, F.	Bartlett, C. A.	Bradford, Prof. F. A.
Akerman, Dr. J.	Batson, H. E.	Bugge, N. R.
Allen, R.	Baxter, Miss B.	Burr, G. B.
Armour, W. N. McS.	Baxter, H. F.	Campbell, M.
Armstrong, W. G.	Bennett, A. F.	Chalahi, A. R.
Artaud, T. P.	Bennetton, J. H.	Chopra, S. R.
Artiss, E. E.	Berkeley, R. F.	Cockrill, A. L.
Atkins, W. E.	Bhasin, P. C.	Conn, Prof. J. E.
Auld, G. P.	Biddulph, G.	Cornelius, J. C.
Balcom, Prof. A. B.	Bittermann, H. J.	Corp, E. A.
Barraclough, W. H.	Bolling, C. L.	Crompton, G.

Cunnison, J.
Das, P. B.
Davenport, E. H.
de Kinder, J. A. C.
Dey, S. K.
Doulton, J. M.
Eccles, D. McA.
Eckhard, Miss E. V.
Engineer, J. N.
Evenchick, E.
Farnhill, J. A.
Faulkner, Captain P. J.
Fenwick, J. O.
Feyler, Mrs. O.
Fields, H.
Finlinson, M. H.
Fisher, N. A.
Fujioka, T.
Goodwin, H.
Graham, R.
Gregory, L. F.
Hall, N. F.
Hill, L. M.
Hill, M.
Hirano, K.
Hobbs, E. C.
Hornsby, H. H. V.
Houslop, N. L.
Howrie, R. J.
Hudson, E.
Illingworth, F. H.
Jackson, A. S.
James, D. J.
Kapadia, H. F.
Khan, A. K.
King, F. N.
Kleerekoper, S.
Klein, Dr. L.
Konno, Y.
Kwong, S. W.
Law, Dr. A. F.
Leslie, W.
Lewis, H.
Lewis, J. H.
Limebeer, A. J.
Limperg, Prof. T.
Lipszyc, J.
Lloyd, D. M.
Lopex, A.
Lowenthal, Prof. E.
Lucas, J. H.
Macbeth, A.
Macdougall, J. D.
Makai, Dr. E.
McGeoch, A.
Maiti, S. N.
Mesiha, W.
Mombert, Prof. Dr. P.
Moulton, P. A.
Mustard, J. W.
Myrdal, Dr. G.
Naylor, L. G. A.
Neate, S. R.
Newton, H.
Nielsen, Prof. Dr. A.
Noel, A. S.
Osborn, V. H.
O'Sullivan, J.
Osundiya, B.
Page, A. J.
Parsons, D. J. F.
Penman, W. B.
Pennock, M.
Perera, N. M.
Pettinger, R. W.
Price, J. G. T.
Pritchard, J. C.
Quick, F.
Rajan, V. N.
Raju, M. G.
Ray, S. C.
Ribo, X.
Richardson, D. W.
Rodgerson, G.
Rokeling, G. D.
Ryder, F.
Saksena, Prof. G. L.
Silvey, R. J. E.
Simey, T. S.
Smellie, K. B.
Smit, C. J.
Smith, C. T.
Smith, F. J.
Smith, T. H.
Soni, G. D.
Strike, F. W.
Taylor, S. B.
Thomas, W. L.
Thomson, W.
Todd, G. F., Jnr.
Toulmin, E. H.
Turner, G. W.
Vakil, M. H.
Walls, N. H.
Wang, Ko Chieh.
Warshow, H. T.
Wheatley, A.
White, F.
Woodworth, L. D.
Young, W. J.

The following have compounded for life membership of the Society :—

Cornelius, J. C.
Eakins, G. C.
Illingworth, F. H.
Kindersley, Sir Robert, G.B.E.
Kwong, S. W.
Lowenthal, Prof. E.

Masure, Prof. T.	Syret, H.
Penman, W. B.	Wang, Ko Chieh.

The following have been admitted to Library Membership :—

Biblioteca Camera dei Deputati, Rome.
Bibliotheque de la Commission Centrale de Statistique, Brussels.
Duke University, Nova Scotia.
General Assembly Library, Wellington, New Zealand.
Academy of High Commercial and Industrial Studies, Bucharest.
St. Paul's University, Tokyo.
Sun Yatsen University Library, China.
University of Pennsylvania.
Lafayette College, Pennsylvania.
University of Virginia.
Public Library, Coventry.
University of Idaho.

We record with regret the deaths of the following Fellows of the Society :—

Blagden, W. G.	(elected 1890)
Ellis, Miss M. A.	(„ 1899)
Frame, Prof. H. C.	(„ 1923)
Morrison, C.	(„ 1926)

Professor J. F. Rees having been appointed Principal of University College, Cardiff, applications are invited for the Professorship of Commerce in the University of Birmingham which he vacates. The annual stipend is £1,000, and the Professor will be required to take up his duties on October 1st next. Twenty copies of applications, accompanied by testimonials, should be forwarded to The Registrar, The University, Edgbaston, Birmingham, on or before June 7. Further particulars may be obtained from the Secretary to the University.

At recent meetings of the University of Birmingham Commerce Graduates' Association expression was given to the feeling that some form of memorial to the late Sir William Ashley should be established to commemorate his connection with the University

of Birmingham, his work in Economic History and Economic Science, and his efforts as a pioneer in higher commercial education in this country. An attempt is, therefore, being made to raise a fund which will enable this object to be achieved. The form of the proposed memorial has not yet been decided. Contributions may be sent to Professor J. G. Smith, The University, Edgbaston, Birmingham, who will give further particulars relating to the appeal.

In connection with Prof. J. H. Jones' article printed above, it may be convenient to give the latest results for the British Coal Industry as published by the Mines Department :—

	1925.	1927.	1928.
Tons disposable, in millions	214·4	221·8	211·5
	Million £.	Million £.	Million £.
Wages	137·1	117·8	100·2
Stores and timber	20·2	20·2	17·0
"Other" costs	29·6	29·2	27·4
Total "net costs" [1]	192·3	172·9	150·0
Proceeds	183·1	167·5	140·2
Loss	9·2 [3]	5·4	9·8
Miners employed [2]	1,040,000	961,000	881,000
Output per manshift, cwts. [2]	18·00	20·60	21·29

[1] Including royalties, and after deducting proceeds of miners' coal.
[2] Mean of quarterly averages. [3] Before crediting subvention

The latest figures, quarter by quarter, have been as follows

Period.	Tonnage Disposable (Milns.).	Costs per Ton. Wages.	Costs per Ton. Total, Net.	Proceeds per Ton.	Loss per Ton.	Output per Manshift.
1927		s. d.	s. d.	s. d.	s. d.	Cwts.
3rd Quarter .	54·0	10 4½	15 3	14 1	1 2	20·47
4th Quarter .	55·4	10 1	14 10	13 10	1 0	20·82
1928						
1st Quarter .	56·8	9 8	14 2½	13 5	0 9½	21·24
2nd Quarter .	50·7	9 7	14 6	13 1	1 5	20·98
3rd Quarter .	49·5	9 6	14 4	13 0	1 4	21·13
4th Quarter .	54·5	9 2	13 9	13 6	0 3	21·80

It has been decided by the Council that the annual Economic History Supplement of the *Economic Journal* shall be described in future as *Economic History*. With the publication of the fourth issue in January last, *Economic History, Vol. I* is now complete. Cases for binding, in a style similar to the *Economic Journal* but in a different shade of colour, have been prepared and can be obtained from Messrs. Macmillan, St. Martin's Street, London, W.C. 2, at a price of 3*s*. net.

We take this opportunity of reminding members that cases for binding the *Journal* are also obtainable from Messrs. Macmillan at a price of 3*s*. Members, wishing to have their *Journals* bound, should send them to their usual binders, with instructions to the latter to obtain the cases *direct* from Messrs. Macmillan.

Members of the Royal Economic Society who have any back numbers of the *Journal* to dispose of are invited to communicate with the Assistant Secretary, Mr. S. J. Buttress, 6 Humberstone Road, Cambridge, who will inform them what offer the Society is in a position to make. There are certain issues in particular which are required in order to complete sets. It would be useful to the Assistant Secretary to know from any member who is ready to dispose of odd numbers out of his back *Journals* what issues he has available.

In general a payment of 2*s*. 6*d*. per issue will be made for such numbers as are required after 1900 and 5*s*. for issues required before that date. For issues Nos. 39 (September 1900), 41 (March 1901), 42 (June 1901) and 43 (September (1901), a payment of 10*s*. per copy would be made.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

Vol. XCII. Part I. *The National Income: the Inaugural Address of the President.* A. W. FLUX. *Interpretation of Periodicity in Disease-prevalence.* H. E. SOPER. *A Graphical Analysis of the Unemployment Position*, 1920-28. C. G. CLARK.

Economica.

APRIL, 1929. *Allyn Abbott Young.* A Memoir. *Labour Problems in Two Worlds.* LILIAN M. FRIEDLANDER. *The Domestic Servants in the 18th Century.* D. MARSHALL. *The Repeal of the Corn Laws,* 1846. J. A. THOMAS. *Farmers of the Customs in the 17th Century.* W. P. HARBER. *Some Probable Consequences of the Advent of a Stationary Population in Great Britain.* L. ROBBINS.

Quarterly Journal of Economics.

FEBRUARY, 1929. *Carrier Property consumed in Operation and the Regulation of Profits.* G. O. MAY. *Self-limiting and Self-inflammatory Movements in Exchange Rates: Germany.* F. D. GRAHAM. *The Export Debenture Plan for Aid to Agriculture.* J. S. DAVIS. *Some German Building Guilds.* W. T. HAM. *Sombart's Hochkapitalismus.* W. C. MITCHELL. *Senior's Social Economy.* R. OPIE.

Journal of Political Economy.

FEBRUARY, 1929. *Gold Economics and Stable Prices.* L. D. EDIE. *"Capitalism" in Recent German Literature.* T. PARSONS. *Benjamin Franklin as an Agricultural Leader.* E. D. ROSS. *McCulloch and Neo-Malthusian Propaganda.* N. E. HIMES. *The Population Problem since the World War,* III. A. B. WOLFE.

American Economic Review.

MARCH, 1929. *Guidance of Production in a Socialist State.* F. M. TAYLOR. *Ten Years' Operation of the Webb Law.* W. No[illegible] *Stock Dividend Question.* A. C. WHITAKER. *Early History of Preferred Stock in U.S.* G. H. EVANS. *Development of Wage Fixation in Australia.* G. V. PORTUS.

SUPPLEMENT. *Papers and Proceedings of the Forty-first Annual Meeting of the American Economic Association.* Includes papers on *Price Stabilisation, London and the Trade Cycle, Federal Reserve Policy, Market Shifts and Price Movements, Unemployment Insurance.*

Review of Economic Statistics (Harvard).

FEBRUARY, 1929. *The Money Market in* 1928. W. R. BURGESS. *Wholesale Commodity Prices in the U.S.*, 1843-62. A. H. COLE. *The Coffee Industry in* 1928. F. E. RICHTER. *The Prospects of the Oil Industry.* J. E. POGUE. *Recent Expansion of Bank Credit.* A. R. ECKLER.

Journal of Economic and Business History (Harvard).

FEBRUARY, 1929. *The Early Stro and the Early Manor.* K. ASAKAWA. *Hat Manufacturing in Rennes,* 1776–1789. H. SEE. *The Iron Industry in Western Pennsylvania up to* 1860. L. C. HUNTER. *Partnerships in the Trade between Spain and America.* A. E. SAYOUS. *Thiers' Attempt to restore High Protection in France,* 1871–73. A. L. DUNHAM.

Political Science Quarterly.

MARCH, 1929. *The Economics of Higher Education in Great Britain.* D. R. FOX. *The Origins of the South Sea Company.* W. T. MORGAN. *Senior's Social Economics.* H. TAYLOR. A review of Senior's contribution, in relation to the important new volume of his writings.

Annals of the American Academy of Political and Social Science.

JANUARY, 1929. This volume is a review of the *Tariff Problem of the United States.* Part I re-examines the question generally and historically; Part II deals with the making of the tariff, especially in relation to politics, and to "scientific" standards; Part III with agriculture; Part IV, with foreign investments; Part V with international complications; Part VI with the future of the tariff in relation to political parties. A well-known model of European tariff walls, which was first exhibited at the Geneva Conference of 1927, is prefixed to this volume; but the scale of height in relation to breadth is, of course, arbitrary.

MARCH, 1929. This volume deals in more than fifty articles with the question of *Farm Relief,* in view of expected legislation in the near future in the light of the McNary-Haugen scheme.

Wheat Studies.

(Food Research Institute, Stanford, California.)

FEBRUARY, 1929. *The Place of Wheat in the Diet.* Wheat now contributes about one-fourth of the calories of the American diet. In most southern European countries it contributes a still larger proportion. It now ranks as one of the cheapest of foods. Per capita consumption is increasing in the world at large, but not in United States, Great Britain, Canada or Australia. To consume our wheat as whole wheat bread instead of white bread would make no essential contribution to national health or national economy.

International Labour Review.

FEBRUARY, 1929. *The New Conciliation and Arbitration Act in Australia.* O. DE R. FOENANDER. *Business forecasting in the United States. Recent Developments by Individual Companies.* J. H. RICHARDSON. *The Employment of Women in Japanese Industry.* I. F. AYUSAWA. *Seasonal Unemployment in the Building Industry in Certain European Countries.* L. HERSH.

MARCH, 1929. *General Principles of an International Convention on the Conditions and Contracts of Employment of Foreign Workers.* L. VARLEZ. *The Organisation of State Industry in Soviet Russia.* N. S. TIMACHEFF. *Seasonal Unemployment in the Building Industry.* (*contd.*). L. HERSH. *The Employment of Women in Japanese Industry.* (*contd.*). I. F. AYUSAWA.

Revue d'Économie Politique.

NOVEMBER–DECEMBER, 1928. *Réparations et dettes entre alliés.* J. LESCURE. *L'immigration ouvrière en France et ses causes.* W. OUALID. *L'économie nationale et internationale.* L. BROCARD. *La méthode et l'ordonnancement de la Science économique chez les économistes français contemporains.* G. PIROU. *La réforme monétaire anglaise.* G. LEDUC.

JANUARY–FEBRUARY, 1929. *Une politique de la dette publique.* E. G. D'ESTAING. *La C. G. C.* C. GIDE. *Les équations de Walras et de Cassel et la théorie de la productivité marginale.* W. L. WALK. *Les cadres d'une histoire économique de la France dans ses relations avec l'histoire générale et la science économique.* H. SEE. *À propos de la crise doctrinale du Socialisme.* H. NOYELLE. *Les États-Unis vont-ils devenir pays importateur de viande ?* O. FESTY.

Journal des Économistes.

FEBRUARY, 1929. *La protection de l'épargne.* E. PAYEN. *L'Agriculture et les villes tentaculaires.* R. J. PIERRE. *Les chemins de fer français depuis cinquante ans.* G. DE NOUVION. *Le commerce extérieur de la Tchécoslovaquie.* S. BORODAËWSKY.

MARCH, 1929. *Le Comité des experts.* E. P. *La Grand-Bretagne en 1928.* R. J. PIERRE.

Annales d'Histoire Économique et Sociale (Paris).

JANUARY, 1929. This is the first issue of this periodical. *Le prix du papyrus dans l'antiquité grecque.* G. GLOTZ. *L'instruction des marchands au moyen âge.* H. PIRENNE. *L'activité industrielle de l'Allemagne depuis la dernière guerre.* M. BAUMONT. *Le problème de la population en U.S.S.R.* G. MÉQUET.

La révue Marxiste (Paris).

FEBRUARY–MARCH, 1929. The first numbers are published of a new journal whose title is self-explanatory.

Scientia.

FEBRUARY, 1929. *Industrial Peace; its Present Position and its Future Prospects in England.* L. L. PRICE.

APRIL, 1929. *Le maximum et l'optimum de la population.* A. LANDRY.

Zeitschrift für die gesamte Staatswissenschaft.

86 Band, 2 Heft. *Staatsform und Zeitung.* W. KAPP. The position of the Press under constitutional monarchy and parliamentary democracy. *Lübeck und die Reichsreform.* H. SCHUMACHER. *Staatsaufsicht und Subordination.* H. KLINGHOFFER. On the relation between self-government and the State. *Die Begründung des französischen Eisenbahnnetzes.* G. LEFRANC. A study of the law of 1842. *George Unwin.* G. BRODNITZ. A review of Unwin's collected papers.

Schmollers Jahrbuch.

DECEMBER, 1928. *Weitere Beiträge zur Produktionslehre.* R. ZUCKERKANDL. This probably was intended to form part of a book which the author was preparing on present-day economic theory, the publication of which was prevented by his death in 1926. Although not completed or corrected, it is an interesting and

original contribution to production theory. *Ein vergessener Kameralist: Benjamin Leuber.* R. H. WESSELY. *Wirtschaft und Vertrauen.* W. ELIASBERG. *Der Kaufmann in Mittelalter.* H. SIEVEKING. *Stammbaum und Artbild der Deutschen und ihrer Verwandten.* F. SCHILLING. *Franz Karl Achard und die Frühzeit der deutschen Zuckerindustrie.* W. STIEDA.

FEBRUARY, 1929. *Seelenform, Gesellschaftslehre und Geschichtswissenschaft.* K. BREYSIG. *Probleme der sozialen Lebenslehre.* M. RUMPF. *Alfred Amonns theoretische Auffassung.* Prof. OPPENHEIMER writes a critical survey of two recent books by Amonn, especially concerned with that dealing with Ricardo. Oppenheimer defends Ricardo against Amonn's interpretation and criticism of the theories of value, rent and wages, asserting that Amonn fails to appreciate Ricardo's use of static conceptions. Moreover, the writings of Clark, Schumpeter and others are not taken into account. *Die Schweiz und Osterreich.* F. KLEZL. *Wesen und Werden des faszistischen Staates.* C. SCHMITT.

Jahrbücher für Nationalökonomie und Statistik.

DECEMBER, 1928. *Die "wertlose" Nationalökonomie.* DR. K. MUHS discusses two books by Fr. v. Gottl-Ottilienfeld in which the latter has criticised the theory of value and attempted to reshape it. *Eine Bemerkung zu Brentano "Entwicklung der Wertlehre."* F. FICK. *Die Reformbedürftigkeit des Schlichtungswesens.* G. ALBRECHT.

JANUARY, 1929. *Die Wirtschaftspolitik Adam Müllers.* J. BAXA. *Das Geld und die Erscheinungsformen der Werteinheit.* A. SOMMER. A theoretical discussion of various kinds of units of value. *Die Entwicklung der landwirtschaftlichen Genossenschaften seit der Währungsstabilisierung.* W. KREBS. *Das Aluminiumzoll Problem.* J. HUPPERTZ.

FEBRUARY, 1929. *Der Gesetzesbegriff in den Sozialwissenschaften.* B. JOSEPHY. *Die "schematische Analyse" in der Konjunkturforschung.* The article by Dr. Wagenführ is based on Oparin's latest book, which deals with Conjuncture and Markets. It seeks to establish criteria for the use of mathematical and statistical methods. *Eine Frage der Kreditorganisation.* I. KORNFELD. "*Wirtschaftsdemokratie.*" G. ALBRECHT. *Die Brotpreise und Kosten des Lebensbedarfs in Berlin im Jahre.* 1928. H. GURADZE. *Arbeitsverhältnisse der Journalisten.* H. FEHLINGER. *Die Eisenbahnen von Afrika.* WERNEKKE.

MARCH, 1929. *Die Lösung der Wert- und Preisfrage aus der Ganzheitslehre.* O. SPANN. After criticising value and price doctrines from Smith onwards, and dismissing Cassel's theory as a primitive tautology, Spann gives a closely reasoned theory of his own. The basis of this is derived from the "totality" doctrine. *Angewandte Theorie der Schlichtung.* W. WEDDIGEN. *Die wirtschaftliche Gesetzgebung des Deutschen Reiches.* J. MÜLLER. *Der Arbeitskampf in der Groszeisenindustrie Nordwestdeutschlands* 1928. G. ALBRECHT. *Saisonschwankungen und Arbeitszeit im Baugewerbe.* H. LECHTAPE. *Ergebnisse aus den Jahresberichten der Gewerbeaufsichtsbeamten für das Jahr* 1927. I. FEICK.

APRIL, 1929. *Die Ueberwälzung der Monopolwirkungen im wirtschaftlichen Konzentrationsprozess.* J. DOBRETSBERGER. *Eine Wiederbelebung der Arbeitstheorie.* J. NEUBAUER. Comments on Conrads' "Breakdown of the Marginal Utility Theory." *Das Ganze der Statistik und die beherrschende Idee.* K. SEUTEMANN.

Archiv für Sozialwissenschaft und Sozialpolitik.

FEBRUARY, 1929. *Entwicklungstendenzen der Landwirtschaft der Vereinigten Staaten nach dem Krieg.* J. D. BLACK. A description and analysis of the position of agriculture in the United States, which contains many interesting statistical comparisons. *Lebens mittelpreise, Beschäftigungsgrad und Kriminalität.* W. WOYTINSKY. An interesting and suggestive article. *Gedanken zur venetianischen Geschichte.* D. M. JAFFE. *Die Geschichtsphilosophie Lassalles.* H. SPEIR. *Arbeitermemoiren als sozialwissen schaftliche Erkenntnisquelle.* A. KOCH.

Weltwirtschaftliches Archiv.

APRIL, 1929. *Die Kritik der Handelsbilanztheorie bei Gidu-Rinaldo Carli* (1769). *Erste Übergänge von der Handelsbilanz zur Zahlungsbilanz.* R. MICHELS. *Krise und Aussenhandel.* F. STERNBERG. *Auslandanleihen und Zahlungsbilanz.* F. VON HANIEL. *Die Wanderungen der amerikanisch-Kanadischen Papier-industrie.* A. PREDÖHL. *Der Charakter der Arbeiterbewegung in den Vereinigten Staaten, Deutschland, und England.* A. L. LUFFT.

Revista Nacional de Economia.

NOVEMBER–DECEMBER, 1928. *El cambio, el comercio exterior y la balanza de pagos.* G. BERNÁCER. In support of the gold standard, with criticism of some arguments for State intervention to maintain the exchange. *Oscilaciones en el cambio de la peseta.* A. F. BAÑOS. Statistics and charts show the depreciation of and fluctuations in the peseta over twenty years; causes and remedies are discussed. *El equilibrio del ahorro.* U. RICCI. A mathematical and diagrammatic treatment of the theory of interest. *Ensayos sobre la organización y desarrollo de la riqueza.* A. DE MIGUEL. A short study of general industrial organisation, with some statistics of the national wealth of Spain and the values of the important industries.

JANUARY–FEBRUARY, 1929. *La técnica del ritorno al patron oro.* G. BERNÁCER. The writer is concerned to show that it would be more prudent for Spain to return to the gold standard by adopting a new parity between the present depreciated peseta and gold than by attempting to restore the pre-war parity. In this first article he deals with the factors affecting the supply of and demand for money, and produces a formula fixing the value of money which, he holds, is less vague than the ordinary quantity theory of money. *La politica monetaria española.* C. MANOS. A study of monetary history in Spain 1868-1928, which leads the author to the conclusion that Government intervention has led to inflation, among other evils, and that in future the currency should be definitely related to gold. *Ensayos sobre la organización y desarrollo de la riqueza.* A. DE MIGUEL. In this general study of Spanish national economy figures are given showing the place of Spain among the other agricultural countries of Europe, and the output of the principal agricultural products since 1891. The influence of schemes for irrigation and agricultural credit is considered, and the possibility of a closer association between agricultural and industrial activities discussed. Statistics show that industry also is expanding and the case for protection is put forward.

Ekonomisk Tidskrift (Uppsala).

1928, Nos. 8–9. *Money Policy.* D. Davidson. In several previous articles the author has on the groundwork of classical economic theory developed a theory of "objective" money value which is not to be confounded with purchasing power of money. Starting from this theoretical distinction he now gives some further explanatory notes as to money policy, rates of exchange, and business cycles. *Increase of Value and Betterment Taxes.* C. Rothlieb.

Nos. 10–12. *The World Crisis of Sugar Prices and its Economic Causes.* D. Davidson. *Dying Nations.* D. Davidson. The New Malthusian movement of birth-control has in Sweden begun later but proceeded faster and further than, for instance, in France. Incidentally the author points out that Malthus realised the danger of depopulation in case of birth-control becoming prevalent, but did not stress what was without practical importance at his time. *Political Economy as Art and Science.* D. Davidson. Reviewing a new book in Swedish by Prof. Cassel (*Socialism or Progress*), the author discusses the old theme indicated in the title. The first duty of social economy is to discover the objectively highest imperatives which are to govern public policy. *The German Works Council.* C. A. J. Gadolin. Some commentary notes to C. W. Guillebaud's *The Works Council.* In this number also are printed the following papers read to the Economic Society, Stockholm, followed by discussion. *Revision of Business Firms.* O. Sillén. *Reform of Legislation concerning Industry and Trade.* S. E. Österberg.

Kyoto University Economic Review.

December, 1928. *Specific Progressions in the Inheritance Tax.* M. Kambe. It is suggested that such progressions may be valid on other grounds than proximity of relationship, and a number of interesting cases are quoted. *The Real Character of Insurance, and the Science of Insurance.* S. Kojima. The chief part of this article deals with a distinction between economics and the science of management; insurance business is a branch of the science of management. *A Short History of Social Problems in Japan before the Restoration.* E. Honjo. *The Tenant System of Formosa.* S. Kawada. Both of these papers, though relating to specially Japanese conditions, are of much general interest.

Giornale Degli Economisti.

January, 1928. *L' "Homo Oeconomicus" e l'esperienza fascista.* M. Alberti. The success in recent years of fascist legislation and administration in the economic sphere affords a proof that economists need to give greater weight to the influence of ideas upon the masses, to the importance of the herd instinct. Fascism has developed a morale and a will amongst the Italian people, the economic repercussions of which are clear to all who know Italy. In the face of so important a causal connection between economic development and political ideas and machinery, it is idle for economists to assume any longer the existence of a *homo œconomicus* who will, under all conditions, give a similar reaction to a given economic stimulus. *Sull' influenza dell' imposta sulla*

domanda e sull' offerta. R. Fubini. While the introduction of a general income tax cannot affect the price level as a whole and cannot be regarded as entering into cost of production, it will affect both the supply of and demand for important categories of goods. The substitution of the demand of the State for the demands of the individuals from whom part of this income is taken in this way will modify the nature and amount of their consumption; while the existence of the tax will also affect the supply of waiting and effort and thus alter the types and quantities of goods produced. Thus a general income tax may affect the prices of particular commodities or factors of production. If the tax is highly progressive, such repercussions will be more strongly marked. "The progressive tax may be considered, for many purposes, as a special case of a partial tax." *Il crescente disavanzo della bilanza commerciale italiana e le sue cause.* G. M. The excess of imports over exports, which was 4,089 million lire for the first ten months of 1927, increased to 6,254 million lire for the corresponding period of 1928. This was due chiefly to the exceptional growth of imports, especially of food-stuffs due to the bad harvest. The failure of exports to expand correspondingly was owing partly to a decrease in agricultural exports as a result of the bad harvest and larger consumption at home, and partly to a fall in price of certain important industrial exports. In the current year also the balance of trade may be expected to be abnormally unfavourable.

February, 1928. *Ripartizione del prodotto totale e offerta a costi congiunti.* A. Crosara. In the first part of this article the teaching of leading economists on the theory of distribution—in particular, of Jevons, Marshall and Pareto—is criticised, while Edgeworth's views are praised. The second part discusses certain aspects of the problem of joint costs. *Le equazioni differenziali della dinamica economica.* Prof. Amoroso, basing himself partly on the work of the American mathematicians G. C. Evans and C. F. Roos, constructs a number of differential equations to represent the relations between demand and supply and price through time. *Le idee di un ignoto mercantilista premontese del secolo decimottavo.* R. di Tucci. *Progressi e tendenze moderne della contabilità agraria.* D. Perini.

March, 1929. *Disamina di alcuni criteri direttivi per la storia delle dottrine economiche.* R. Michels. A number of possible methods or criteria for a study of the history of economic theory are examined and discussed. *Sull' attendibilitá di alcune statistiche econômiche medievale.* G. Luzzato. It has been customary to deny almost all credence to the statistics contained in the writings of certain contemporary historians of Venice in the fourteenth and fifteenth centuries—notably Villani and the Doge Mocenigo. But recent researches have shown that this scepticism is exaggerated and has gone a long way to re-establish the statistical reputations of the historians referred to. *La moneta nella teoria dell' equilibrio economico.* G. del Vecchio. The point of departure for the solution of the problem of the theory of money is to be found in Knut Wicksell's doctrine of the influence of the rate of discount upon the price level. Great importance is attached to the relation between the rate of discount and the rate of interest. *Sul concetto di velocità di circolazione della moneta.* L. Amoroso. A criticism

of a formula for measuring the velocity of circulation put forward in a recent work by J. Rueff. It is pointed out that the formula in question does not represent the weighted average of the sum of individual transactions carried out during a period of time, but "the coefficient or instantaneous rate of increase of the circulation." This latter may be either positive or negative, while the former $\left(\text{the classical } V = \frac{PQ}{M}\right)$ must always be positive.

La Riforma Sociale.

JANUARY–FEBRUARY, 1929. *Ancora le sperequazioni e le evasioni nell' imposta di richezza mobile.* In the first of three articles dealing with the perennial problem of the inequality of burden and evasion of the Italian income tax, PROF. EINAUDI proposes an alteration in the basis of assessment, such that the tax should be levied on an estimated average income fixed in advance for a period of four years and unalterable within that period. SIGNOR A. DENI suggests a number of reforms both in the law governing the income tax and in the administrative machinery for assessment. PROF. S. SOCCA quotes figures which give presumptive evidence of the extent of evasion. In 1928 the average income assessed for income tax of those engaged in commerce and industry was 5,862 lire (£63); of professional classes 5,652 lire; of State employees (whose incomes are taxed at the source) 10,761 lire. The present yield of the tax is 3½ milliard lire (£38,000,000). He criticises the contention of Prof. Einaudi in the July-August number of the *Giornale* that the professional classes are taxed at present at too high a rate in comparison with State employees. *Insegnamento professionale agricolo.* P. BANDI.

De Economist (Haarlem).

[JANU]ARY, 1929. *De werking van Böhms "Drei Gründe" in individueele en in collectivistisch georganiseerde huishoudingen.* G. MORREAU. An elaborate discussion of Böhm-Bawerk's theory of interest with special reference to Emil Sax's criticism, as contained in *Der Kapitalzins* (1916). In spite of the superficialities and the other defects inherent in Sax, he is in the main right. Interest is a phenomenon which emerges from exchange, and there can be no interest in a "Robinson Crusoe" economy. The writer takes Böhm-Bawerk's three "Gründe" (the greater satisfaction of needs in the future,; the systematic under-estimation of needs in the future; the advantages of indirect and roundabout production) and considers, as applied to "Robinson," how far they can be said to give rise to interest. Chief space is devoted to the third, and to the question whether the increased production so arising is to be regarded as an income attributable to labour or is of the nature of Interest. The article concludes with a discussion of Interest in the Socialist State. *Industrieele trusts en kartels. Productie-deviatie.* J. WISSELINK. In most discussions of the "correctives" of trusts, emphasis is laid on potential competition. The question of correctives is now of less importance because, in the words of Frijda, "the semi-monopolistic large undertaking has a tendency to become more or less socialised, *i.e.* to become an institution which fulfils a social task, and which, in the fulfilment of this task

is more and more moved by social considerations." With regard to the corrective of new competition, it is usually assumed that this will require a considerable time to be effective; it is overlooked that new goods of the monopolised class may be placed in the market not merely by new firms, but as a result of "deviation of production" by existing firms. A detailed discussion follows as to the two types of cases.

FEBRUARY, 1929. *De werklooshied onder de arbeiders in land- en tuinbouwbedrijven.* J. J. VAN RIEMSDIJK. A discussion of unemployment in agriculture in the various provinces of Holland in 1914 and to-day; the causes making for and against an increase in the volume of unemployment are discussed. *Nederlands aandeel in den handel van Indie.* G. M. VERRIJN STUART. Dutch trade with Dutch India is less favourable than before the war. Exports to Holland have fallen from 28·1 per cent. of the whole in 1913 to 16·7 per cent. in 1926. Europe's share has declined; America's has increased. Of European countries Great Britain alone shows a significant increase, from 3·9 per cent. to 10·1 per cent. The causes of the change are discussed: (i) primarily the change is due to the tendency of trade to follow the shortest route; also (ii) in part it is due to changes in the character of the exports (rubber, *e.g.*, tends to be exported direct to the country of consumption). *Het index-cijfer van de "Economist."* G. A. P. WEYER. A note on the changed method of calculating the *Economist's* index-numbers.

MARCH, 1929. *Het suikervraagstuk in Nederland.* J. J. VAN RIEMSDIJK. A full review of the recent controversy in Holland with regard to the sugar-beet industry, which has resulted in the introduction (in the Second Chamber) of a measure providing for a subsidy. The writer's view is that it has been assumed too readily, and without adequate examination of the figures, that the industry cannot be profitably carried on. The reason suggested for the depressed state of the industry in the south-west is that agriculture is there disproportionately directed in that direction, and that, if assistance is required, it should take the form of propaganda in support of more rational management of the industry. Various "indirect" methods of assistance are discussed.

NEW BOOKS

British.

ASHTON (T. S.) and SYKES (J.). The Coal Industry of the Eighteenth Century. Manchester University Press. 8½″. Pp. 268. 14*s*.

BANKS (SIR R. M.). The Conservative Outlook. Chapman and Hall. 7¼″. Pp. 276. 5*s*.

BENN (E. J. P.) and MAXTON (J.). The Case of Benn *v.* Maxton; being a correspondence on Capitalism and Socialism, to which is appended the report of a broadcast debate. E. Benn, Ltd. 8½″. Pp. 215. 5*s*.

Brown (W. A.). England and the New Gold Standard, 1919–26. P. S. King. 9″. Pp. 322. 15*s*.

Bryant (A.). The Spirit of Conservatism. Methuen. 7½″. Pp. 175. 2*s*. 6*d*.

Chalmers (R. W.). Hospitals and the State: a popular study of the principles and practice of charity. John Bale. 8½″. Pp. 143. 6*s*.

Clapham (J. H.). The Study of Economic History: an inaugural lecture. Cambridge University Press. 7½″. Pp. 40. 1*s*. 6*d*.

Clay (H.). The Problem of Industrial Relations, and other Essays. Macmillan. Pp. 322. 10*s*. 6*d*.

Cole (G. D. H.). The Next Ten Years in British Social and Economic Policy. Macmillan. Pp. 459. 15*s*.

Comyns Carr (A. S.) and Evans (D. R.). The Lure of Safeguarding. Allen and Unwin. 7¼″. Pp. 126. 3*s*.

Darling (M. L.). The Punjab Peasant in Prosperity and Debt. Second edition. H. Milford. 8½″. Pp. xxiv + 312. 11*s*. 6*d*.

Davison (R. C.). The Unemployed, Old Policies and New. Longmans, Green. 8½″. Pp. 292. 10*s*. 6*d*.

Eggleston (F. W.), (Ed.). The Australian Mandate for New Guinea: Record of a round table discussion. Issued for the Victorian branch of the League of Nations Union. Melbourne (London: Macmillan). 7½″. Pp. 149. 5*s*.

Firth (R.). Primitive Economics of the New Zealand Maori. G. Routledge & Sons. 9¼″. Pp. 505. 25*s*.

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THE ECONOMIC JOURNAL

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THE PUBLIC REGULATION OF WAGES IN GREAT BRITAIN[1]

I

A GREAT change has taken place during the last twenty years in the methods of negotiating wage-changes. In 1910, when the Labour Department of the Board of Trade published the result of an inquiry into collective agreements, it was estimated that 2,400,000 workpeople worked under conditions specifically regulated by such agreements. The report adds—and the addition is important—that there were a large number of other workpeople whose wages, hours of labour, and other conditions followed, and were in effect governed by these agreements; but a generous allowance for this addition will still leave the total far short of the wage-earning population, which, excluding domestic servants as outside the probable field of collective bargaining, numbered about thirteen millions.

Trade unionism was, however, spreading. In 1914 the total membership, which at the time of the inquiry was 2½ millions, had grown to over 4 millions. It reached a peak of 8⅓ millions in 1920, and was still 4,908,000 in 1927, the latest year for which returns are available. More significant in principle than this expansion of an existing instrument of control was the direct intervention of the State in the fixing of wages by the Trade Boards (Minimum Wage) Act of 1909. Confined at first to trades in which wages were "exceptionally low," this Act made the settlement of minimum rates of wages by a representative joint body compulsory, associated with the representatives of the workpeople and employers, impartial members, who would represent the interest in the settlement of the general public and also ensure a decision in case of deadlock, and provided for the enforcement of the rates fixed by the appropriate Government Depart-

[1] Presidential Address to Section F of the British Association, South Africa, 1929.

ment. The scope of this machinery was extended after 1918, when an Amending Act substituted for " exceptionally low wages " the absence of adequate machinery for the effective regulation of wages as the *differentia* of the trades to which the Acts might be applied; and in 1925 it was estimated that a million and a half workpeople had their wages regulated by Trade Boards. A less revolutionary extension of Government activity was the approval given to the Whitley scheme of Joint Industrial Councils and assistance in the formation of such councils; as a result of which it was estimated, rather optimistically, that three million workpeople were covered in 1925.[1] In the same category may be placed the scheme of Conciliation Councils in the railway industry, embodied in Part IV of the Railways Act of 1921. Finally, temporarily by the Corn Production Act of 1917, and permanently by the Agricultural Wages Boards Act of 1924, the benefits, whatever they may be, of organised settlement of wage-rates by representative bodies were extended to the last great unorganised group, the agricultural labourers. It is not possible to compute a figure for a recent year to correspond with the 2,400,000 of 1910, because the status of collective bargaining in certain important industries is obscure; but if we add together the numbers covered by Trade Boards, Agricultural Wages Boards, Joint Industrial Councils, and Unions in certain industries, which, like coal and cotton, have adopted none of these forms of organisation, we get a total of eight millions out of a wage-earning population which, excluding domestic service, numbers something under fourteen millions. When we remember that the influence of an agreement or a determination reached by a representative body tends to go beyond the limits of the membership of the organisations, and even trades, directly represented, we may safely conclude that there are few important gaps left in the provision for the settlement of wages by collective bargaining in Great Britain.

The precise nature of this change is worth some consideration. It was not the introduction for the first time of standardised rates of pay in time-work occupations. Even if we leave out of account the considerable part of the field covered by trade unionism at the beginning of the century, it is probable that in most districts, in which an occupation was followed by considerable numbers, there were customary rates commonly recognised, which the majority of employers observed. These rates were not so definite and secure as they became when they were embodied in a collective agreement; but, outside the so-called " sweated trades,"

[1] Balfour Committee, *Interim Report on Industrial Relations*, p. 47.

they were a limitation on the freedom of the individual employer to vary rates. Immediately, wages were fixed for him rather than by him, although ultimately they had to conform to the demand for labour, of which he was the channel. Nor was the change a universal substitution of collective for individual bargaining about rates. In piece-work industries after the change, as before, the vast majority of rates were settled by an individual bargain between the workman and the employer's representative. The change was a change in the procedure by which general changes in wages are effected, in response to general changes in the economic conditions of a trade or of industry as a whole, and its essence was the extension of collective bargaining for this purpose from a part of the field of commercial wage-employment, say a quarter, to the whole.

The effects of collective bargaining are, of course, not limited to general changes in wages. It provides an opportunity of effective appeal against grievances of all kinds, which does not exist in its absence, and tends to a more definite standardisation of wages and conditions. When first introduced it usually brings about a rise in wages; the Agricultural Wages Boards, when first established in 1924, raised weekly wage-rates by an average of 3*s*. a week, although there was no change in the economic conditions of English agriculture to justify any such change, and the first Trade Boards in some cases established *minima* that were double the rate of earnings ruling in important districts before. But the significant and essential change was the change in procedure. Wage-rates in any case have to be adjusted to changes in the demand for different kinds of labour, changes in the purchasing power of money, changes in the general prosperity and activity of industry. Before the war, outside the organised industries, the adjustment was made by the individual action of the employers, who first felt the need; to-day the process of general wage-changes has, we may say, been constitutionalised.

II

The extension of public regulation of wages in this sense from a part to the whole of the field of commercial wage-employment could hardly be without some effects upon the general industrial situation. In their classic study of the effects of collective bargaining Mr. and Mrs. Webb lay chief stress upon its influence in increasing the efficiency of industry. They draw a sharp distinction between the policy of restricting numbers in a trade

and that of imposing common rules. Their survey of trade unionism showed that the former policy, anti-social and self-defeating, was adopted by a smaller and smaller proportion of unions, and was becoming more and more difficult of application; the discarding of any attempt to restrict numbers, and the concentration on the policy of imposing standard or minimum rates and conditions, was growing, and was the chief characteristic of trade unionism in the expanding industries. This policy increased industrial efficiency in two ways, by its reaction on the workman and by its reaction on the employer. The workman, prevented from securing employment by accepting a lower rate of pay than his competitors, was compelled to improve his efficiency and was enabled to do so by the increase in income and security that trade unionism usually brought. More important were the reactions on the employer. Stopped from taking the easy but dangerous path to lower costs of cutting wages, he had to find other means of increasing output in relation to wage-payments. Hence trade unionism encouraged an increase in the scale of production, a more extensive use of mechanical equipment, a more eager search for technical improvements, and, generally, the economy of labour. It did not extinguish competition, but diverted it from wages to other factors in costs.

The rapid expansion of the unionised coal, cotton and engineering industries in the decade following the publication of this analysis seemed to confirm its soundness. The decline and stagnation of the same industries in the last eight years prompts the inquiry whether this influence has exhausted its potentialities. The evidence collected by the Balfour Committee, while not decisive, points to the conclusion that labour-cost in the export industries has risen as much as, and possibly more than, wage-rates, which implies that such increase in efficiency as these industries have been able to secure has not been more than sufficient to compensate for the reduction in hours of work.[1] In the trades to which Trade Boards were first applied, many instances were afforded of improvements effected under the stress of the need to economise labour, and in some of them, for instance the clothing industries, a marked increase in scale, such as the Webbs' analysis would lead one to expect, took place. We should expect the reactions of this kind to be greatest in the trades in which wages and conditions had been worst, and in the period immediately following the first application of control.

[1] Balfour Committee *Further Factors in Industrial and Commercial Efficiency*, pp. 92 *et seq.*

Whether the influence on efficiency has continued and is general, the abnormal condition of British industry makes it difficult to decide. The large amount of short time, the increase in other costs, and the financial difficulties which prevent large numbers of firms from installing improvements, which they would like to instal, all obscure the issue. Without, however, attempting to decide the larger question, we may note two things.

The first is that the contemporary experience of America shows that collective bargaining is not a necessary condition or the only means of stimulating an increase in efficiency. Since the pre-war period, while British industry with its new equipment of universal collective bargaining has at most increased output sufficiently to compensate for the reduction in normal hours, manufacturing output per head in America increased in the ratio of 105 to 147 between 1919 and 1925. In the same period the extent and strength of trade unionism in America declined, except in certain industries, in which the unions have departed from the old policy of leaving the employers to find ways and means of meeting their claims, and have assumed a direct responsibility on behalf of their members for reducing labour-costs as a condition of maintaining or increasing wage-rates.

The second note is this. In so far as the extension of collective bargaining does stimulate or compel economy in labour—and, if it has not done so on any large scale at present, it may do so in the near future—it may maintain wages at the expense of increasing unemployment. In the great export industries of coal and cotton, for example, demand for British production appears to be inelastic, and considerable reductions in cost have not resulted in any substantial increase in employment. Moreover, much of the employment at present given is given at a loss. A reorganisation that made it possible to maintain present wage-rates without loss would probably, therefore, involve a reduction in the numbers to whom employment could be given. Such an extrusion of unwanted labour, as a result of improvements in the technical processes or organisation of industry, is a normal incident of economic progress; and the hardship it may involve need be only temporary, provided that the expansion of industry as a whole is great enough and rapid enough to absorb the extruded labour. When all the industries of the country adopt collective bargaining, and all begin to adopt the policy of holding up wage-rates, leaving it to the employers to tune up industry to the pitch at which such rates can be paid, the numbers of extruded workers for whom the new and expanding industries have to find employment is likely

to be increased, and the rate of expansion of industry as a whole becomes a factor of much wider and more pressing interest in wage-negotiations than before.

III

Mr. and Mrs. Webb in their rationalisation of trade union policy distinguished sharply, as we have seen, between the effects of a policy of restriction and those of the policy of regulation. The benefits of trade union organisation to society at large, as distinct from the sectional interest of the members, accrued only if union policy eschewed restrictive practices, and, by concentrating on maintaining and advancing wages and conditions, brought about an improvement in industrial efficiency.

It is obvious that an advance in wages secured by any one class of workpeople, if it is not covered by a corresponding increase in the efficiency of the industry in which they are engaged, must be at the expense of someone else. The increased efficiency may be due to the workpeople or to the employers; but, if neither of them create a fund from which increased wages can be paid, the increase will be paid either by consumers or by the co-operating industries that help them to supply the consumers. If the increase is merely sufficient to keep pace with an advance in the average level of wages, it may represent no more than the industry's proportionate share in the general increase of wealth; if, however, it is greater than the average, or, in times of wage-reductions, the reduction is less than the average, it must involve the diversion to the favoured industry of a larger share of society's income.

Such a diversion may be effected without overt restriction of numbers. If a union—or a Trade Board or Arbitration Authority—fix wage-rates in an industry at a level which makes it impossible for the industry to employ all the workpeople seeking work, and maintain rates at that level, it will immediately restrict employment, and ultimately may so discourage entry to the industry, that the number of workpeople dependent on the industry is no greater than can be employed at the rates set. The demand for the products of industry, and therefore for labour, ebbs and flows with general fluctuations in trade; a strong union can maintain rates when demand ebbs and advance them when demand rises, thus preventing both a fall in *rates* proportionate to the general decline in money incomes in the depression, and an expansion in *numbers* proportionate to the general increase in production when trade improves. On the

other hand, an unorganised industry may suffer a reduction of rates when trade declines and an expansion of numbers, on the low level of wages so established, when trade improves.

The mere regulation of wage-rates may, therefore, be restrictive in its effects. Such restriction may be legitimate and socially desirable; but it destroys any sharp distinction and opposition between a policy of restriction of numbers and a policy of imposing common rules of payment and conditions. It makes no difference, for example, to a coloured worker in countries of mixed nationality, whether he is excluded from certain occupations by a legal colour-bar, or by a legal minimum rate so high that no employer would think of paying it to a coloured worker; it makes no difference to an unemployed building labourer, whether the expansion of the building industry, to a point at which he would be absorbed, is prevented by apprenticeship regulations, making it impossible for building employers to get enough skilled men, or by the establishment of skilled rates, that raise the cost of building and restrict the demand for houses. It is not even clear that the reactions upon efficiency of the two policies are necessarily different. If the supply of a certain class of labour is restricted, employers will be stimulated to devise labour-saving appliances to substitute for it, or some reorganisation to dispense with it, just as certainly as if the supply is unrestricted but expensive. One generation of architects devised ways of using brickwork in pilasters, cornices, string-courses, and around openings because stone-masons made themselves scarce and expensive; a later generation used concrete to replace brickwork because bricklayers had become scarce and expensive; the development would have taken place whether the impulse came from a scarcity, or from a disproportionate rise in the cost, of the necessary skilled labour.

Trade-union control of wages, and the analogous control by public wage-fixing authorities, may be most simply regarded as an application of monopoly price policy to labour. The monopoly is seldom, if ever, complete: but what monopoly is? It gives the seller of labour no control over the demand for his services; it merely enables him, so far as it is effective, to select the point on the demand curve at which he will hold the price, until a general rise in demand absorbs at that price all the union members, instead of allowing competition for employment always to force wages down to the point at which the whole supply of labour is absorbed. It is a policy that can be pursued without causing more than temporary unemployment, under two conditions;

first, that the wealth of society is steadily growing, so that continually higher wage-rates can be paid without causing unemployment: secondly, that it is practised only by a minority of the trades in the community. The latter condition no longer obtains.

IV

The industries of the country are co-operant agents in the production of the commodities and services that industry sells. So long as everybody was not organised to attempt it, it was always possible that favoured trades, by means of a monopolistic organisation, might secure for themselves a larger share of the final price received for industry's products. Marshall illustrated this possibility by a hypothetical case, which has recently been illustrated in actual experience, that of plasterers, whose services were jointly demanded with other kinds of building and building-material labour; but the possibilities are wider. Mr. Rowe has recently shown us that the true rate of advance of wages (average of skilled, semi-skilled, and unskilled grades) between 1886 and 1913 was 47 per cent. in coal-mining; as compared with 9 per cent. in the case of railways, and an average of about 25 per cent. for the five representative industries he studied. Mining is one of the instances Mr. and Mrs. Webb take, and the enormous growth of the industry in the period shows that the advances that the unions were able to secure certainly did not prevent growth. They may also have had some influence upon the efficiency of the industry; but any such increase in efficiency was not latterly sufficient to counteract the opposing influence of exhaustion of supplies; output per head in tons declined from 1907 onwards. Now the final price to the consumer of coal has to cover not only the getting of the coal, but the transport of it, and such transport is an important source of revenue to the railways. May it not be that railwaymen would have got more, and miners less, of the final price, if the railwaymen had been organised and the miners unorganised? [1]

Just before the war the railwaymen completed an effective union organisation, which the circumstances of the war and the post-war period tended to favour; and the pull that they are able to exert upon the distribution of the price paid by the con-

[1] South Africa appears to offer the extreme case of a distribution of the final price of coal in favour of railwaymen. The pit-head price of coal in the Northern Transvaal in 1923 was 5*s*. 3*d*. per ton, the railway rate per ton per 100 miles 7*s*. 4*d*.; miners' wages averaged £45 a year, railwaymens' £117. (Calculated from figures given in Union Year Book, No. 7.)

sumer for coal is certainly not less than that exerted by the miners to-day. And this change is significant of the general change in the competitive position of different wage-earning groups. All now are organised, or provided by the Government with equivalent protection; all are able to set and hold rates of wages as firmly as the minority of well-organised trades were able to hold them before the war. Partial and sporadic monopolistic organisation has been displaced by universal control. Two consequences follow. First, it is no longer possible for well-organised trades, merely by virtue of their trade union organisation, to secure differential gains at the expense of unorganised or ill-organised groups with whom they co-operate; or, if it is still possible, at any rate it is more difficult. In the second place, influences upon wages, that were formerly counteracted by trade union organisation, have now free play. Organisation and control, having been extended generally, no longer differentiate groups, so that their influence, if not yet eliminated, is very much reduced.

From this point of view the intervention of the State, in establishing Trade Boards and Agricultural Wages Boards and in other ways, and the contemporary extension of unionism to hitherto unorganised trades takes on a rather different aspect from that which Mr. and Mrs. Webb put upon it. They represented it rather as an extension to the rest of industry of the principle of trade union control and of the benefits that they had shown to follow from trade-union organisation. This, of course, it was; but it was at the same time a necessary corrective of trade-union influence. So long as only a part of the field of wage-employment is covered by trade-union organisation, the benefits secured by trade unionists may in part be at the expense of the workpeople in the unorganised part of the field; so far as those benefits are not the return to increased efficiency due to union pressure, they will almost certainly be in part at the expense of other wage-earners. To prevent this kind of horizontal redistribution, it is necessary to put all wage-earners on an equality in respect of organisation for wage-bargaining: it will never be possible to secure complete equality in this respect, but the changes of the last twenty years have eliminated the obvious inequality, and thereby eliminated a great part of the danger.

Trade-union organisation is, however, not the only element of monopoly or other advantage differentiating different occupational groups. The extension of union organisation, therefore, or some effective substitute for it, to the support of wages throughout the whole of industry, does not suffice to put occupations upon

an equality. Rather its effect is to enhance the influence upon distribution of other factors making for inequality, more particularly of those elements of bargaining advantage that are inherent in the nature of different industries, but were obstructed or outweighed in the past by the greater influence of unequal union organisation. The second consequence of general control is, therefore, the release of influences upon wages which were formerly prevented from exercising their full potential effect. In this release is, I think, to be found a partial explanation of the changed relations which wages in different industries bear to one another since the war; the extension of trade-union or Government control over the whole field of commercial wage-employment has cancelled an advantage which the workpeople in the organised trades used to possess, and, by so doing, has increased the relative influence which other elements of monopoly or bargaining-advantage exercise upon wages. The extension would be an almost unqualified improvement, if its effect was to confine wage-claims to amounts that could be justified by the increased efficiency of industry, to which the control of wages contributed. Since, however, there are other conditions, which enable or encourage one trade to profit at the expense of others, and since the different controlling authorities carry on the pre-war trade-union tradition of considering only the needs and possibilities of their own trade, the general extension of control may result in a general attempt to secure more wages than can be paid. This suggests a third possible result of the change that we must consider.

V

Before the war the policy of maintaining wage-rates in spite of unemployment could be practised only by the organised minority of wage-earners. The majority were unable to resist reductions that were needed to maintain employment; and any workers excluded by the policy of the stronger unions could compete for employment in industries in which wages were not held above absorption level. To-day there are no unorganised industries in this sense; wages are held up, either by trade-union or Government support, generally, and workers excluded from employment by a *general* holding up of wage-rates above absorption level have no resort except unemployment relief. Before the war, again, in the absence of any general unemployment relief, it was impossible to maintain wage-rates generally at a level that restricted employment throughout industry; somewhere, usually

at many points, wages (in relation to efficiency) would be reduced to the level at which expansion could take place; the condition "in relation to efficiency" is necessary, because in fact expansion took place in the high-wage rather than the low-wage industries. Has the extension of collective bargaining destroyed this plasticity, this automatic adaptation of wage-rates to opportunities of employment?

The mere substitution of regular for informal discussion does not by itself make it more or less difficult to adjust wage-rates to varying conditions. The change is one of procedure only; it should, if it has any effect, tend to bring under notice more comprehensively and display more accurately the factors that have to be taken into account in finding the "right" wage. If this is taken to be the wage that measures the marginal productivity of the number of workers available, it is just as likely that the right figure would emerge from the deliberations of a representative joint committee or an experienced arbitrator, as from the unco-ordinated bargainings of a multitude of isolated individuals. It is conceivable, therefore, that the most complete plasticity might be secured by the most complete public control, since complete control would remove the fear that a reduction once conceded could never be recovered.

Again, the change in methods of settlement has not stopped the movement of wages. An examination of the Ministry of Labour's record shows that wage-changes have been more frequent, ample and extensive than before the war. We do not find that the movement of wage-rates adjusts the supplies of different kinds of labour to the demand for them. On the contrary, unemployment persists in most industries after frequent wage-adjustments. If we examine the results actually brought about, the generalisation that suggests itself is that wage-rates are adjusted to the varying degrees of bargaining strength of different groups of wage-earners, in other words, to the factors whose influence was formerly obstructed by unequal trade-union organisation. The commercial condition of the industry in which they are engaged is one factor in determining their strength, but not the only factor. Thus wage-rates in the "heavy" industries reflect the depression in those industries and the inability of the unions to exact higher rates. But the textile industries, although equally depressed, maintain a level of wage-rates that is relatively high; in cotton wage-rates have been unchanged at about double pre-war rates since 1922, partly because the difficulties of the industry are so great that the operatives feel that any sacrifice

on their part would be unavailing, partly because the financial difficulties of a large section of the employers have made it impossible for them to face a strike. Similarly, the railway directors may think that it would pay the companies and the country to reduce their charges to the depressed heavy industries, but they cannot make further concessions, unless they can reduce their own expenses, in which wages are the most important and the most expanded, and, their demand for the labour they retain being inelastic, they cannot force a reduction there. And so with other competitive inequalities. In the industries sheltered from foreign competition, the workers have been able to exploit the "shelter." Where subsidies have been paid the unions have secured for their members a share of the subsidy. Where an industry or section of an industry enjoys some element of monopoly, wage-rates, when compared with wage-rates in the other sections of the industry, suggest that the monopoly profits are shared by labour. In industry in general the lower-paid classes of workers, who secured greater proportional advances during the war, have so far been able to retain their advantages, a power explained by the spread of trade unionism among them and Government protection of wage-rates through Trade Boards.

Thus the movement of wage-rates does not bring about an adjustment to the capacity of the different industries to pay wages and provide employment to the workers seeking employment; the set of wage-rates it results in represents the power and opportunities, often temporary and accidental, that organised workers have had of exacting wages, with little or no regard to the ultimate demand for labour as shown by the extent of unemployment.

In producing this result the extension of public and collective regulation of wages has been an influence. By preventing the nibbling at them by hard-pressed or unscrupulous employers that undermines standards in unorganised trades, it tends to adjust rates to the capacity of the larger and better-organised firms. More important, it opens the door to the influence of non-economic factors. The mere fact of publicity, or organised discussion, invites appeal to social and ethical standards of "fair" and "living" wages, to pseudo-principles such as the sanctity of pre-war *real* wages, to the unpopularity of reducing rates of wages of the lower-paid workers, none of which have any bearing on the capacity of industry to pay wages and provide employment. Economists in the seclusion of a private circular may state baldly that "the fundamental hindrance to recovery

. . . lies in the abnormal relationship between the movement of the cost of materials and that of the cost of labour," [1] but directors of large companies, who may be candidates for Parliament, will not commit themselves publicly to such unpopular opinions.

VI

The increased element of publicity and public control of wages, therefore, will tend to harden wage-rates in a depression, provided that the representatives of the wage-earners really wish to resist reductions. Whether they will do so or not, however, will depend on the consequences of successful resistance, at which we must glance. Before the war the consequence would have been unemployment; and unemployment would have involved, for the small minority of wage-earners covered by trade union unemployment insurance, a drain on the union funds; for the great mass of wage-earners, who had no such resource, early and extreme hardship. It was impossible for the representatives of the wage-earners in wage-negotiations to ignore unemployment.

To-day things are different. Successful resistance to a reduction may still involve unemployment, but unemployment does not involve the same certainty or degree of distress. Before the war the provision for unemployment relief was partial and inadequate. To-day there is a system of unemployment relief that covers all the industries that are liable to serious unemployment. Then the spokesmen of the wage-earners had to consider the employment situation, because their clients would be the chief sufferers, if their wage-policy restricted employment; now, in such a case, they may nevertheless persist in their policy, since they are conscious that their clients are not without resources, if all cannot be employed at the level of wages exacted.

It is not that unemployment relief leads to the refusal of available work; the Employment Exchanges provide an adequate check on that abuse, were there any general inclination towards it. Nor does the relief, as it is administered, impose any insuperable check upon mobility between district and district or trade and trade. The Courts of Referees and the Umpire, who decide on doubtful claims to benefit and administer the provision in the Acts that the applicant shall be "genuinely seeking work" but unable to obtain "suitable employment," while they treat each case on its merits, have in general put an interpretation upon these terms that requires the unemployed workman sooner or

[1] *London and Cambridge Economic Service:* Bulletin of October, 1928, p. 3.

later to accept work outside his own district or trade, if it is available.

The effect of unemployment relief is indirect. It influences wage-rates by disinclining the representatives of the wage-earners to take the same account of unemployment as they did before relief was provided. Two incidents of the scheme strengthen this tendency. In the first place the unemployed are not an undisturbed mass of permanently unemployed workpeople, but a body the composition and membership of which is constantly changing. Hence the evil of unemployment is diffused, and there is a chance that intermittent employment at the higher rate will bring in as much as regular employment at a lower rate. In the second place the system of organised short-time makes it possible to dove-tail periods of wage-earning with periods of unemployment relief. Employers have adapted their engagement of labour to these conditions, and thus spread the available employment over a larger number of workers than the industry could employ full-time, at the same time throwing on the unemployment insurance fund the burden of maintaining the surplus labour when it is not in employment. Instituted as a device for tiding over a temporary depression, this system has been prolonged as year succeeded year of unemployment, and has had the effect of substituting intermittent and irregular employment for regular work in industries in which such conditions were formerly rare.

This comparative disregard of unemployment in wage determinations is as distinctive a change from pre-war practice as the extension of collective bargaining, and much more significant for the problem we are now examining. Summing up the practice of trade unions at the beginning of the century, Mr. and Mrs. Webb pointed out that the unions had "a rough-and-ready barometer to guide (them) in this difficult navigation." They continued:

"So long as a trade union, without in any way restricting the numbers entering its occupation, finds that its members are fully employed, it can scarcely be wrong in maintaining its Common Rules at their existing level, and even, after a reasonable interval, in attempting gradually to raise them. . . .

"When the percentage of workmen out of employment begins to rise, it is a sign that the demand for their particular commodity has begun to slacken . . . although it can in no way be inferred that the slackening of demand has been caused by the rise in the level of the Common Rule, rather than to any other of the many possible causes, yet this slackening, however it is caused, must

necessarily check any further advance. For assuming the workmen to rely exclusively on the Device of the Common Rule, it will not pay them to obtain a rise . . . at the cost of diminishing their own continuity of employment. To put it concretely, whenever the percentage of the unemployed in a particular industry begins to rise from the 3 or 5 per cent. characteristic of 'good trade,' to the 10, 15, or even 25 per cent. experienced in 'bad trade,' there must be a pause in the operatives' advance movement." [1]

If organised workpeople in this way took unemployment as an index of industry's capacity, and adjusted their claims accordingly, unorganised workpeople certainly could not do otherwise. Any temporary success that the latter might achieve in maintaining or advancing wage-rates, where commercial conditions called for a reduction, would have the effect of excluding from employment a mass of labour that would press upon the restricted openings for employment, and inevitably, in the absence of trade-union or trade-board support, lead to individual concessions and the disintegration of wage-standards.

Hence pre-war industry exhibited a fairly close correlation between the movement of wage-rates and employment as measured by the (inverted) trade-union unemployment percentage curve. There was a lag, but, allowing for this, a fairly close adjustment of wage-rates to changing commercial conditions. This correlation is not to be observed in post-war industry since 1922. In the great upward movement of prices from 1914 to 1920 and in the ensuing collapse from 1920 to 1922, wages followed other prices; but since then wages on the average have changed very little, while both prices and unemployment have varied considerably. If we consider, not the average movement, but the independent and divergent changes in wage-rates in separate industries, what we notice is not an adjustment of wages to conditions of employment, but, as is pointed out above, an adjustment to the varying capacity of different groups of workpeople to resist reductions or exact advances.

This post-war disregard of unemployment in wage negotiations is the principal and direct explanation of the loss of plasticity in wage-rates. It should be noted, however, that the provision of unemployment relief is not the only cause of the change. We have already come across another reason for it in connection with the cotton industry. The representatives of the wage-earners, quite rightly in many cases, believe that any concession on their

[1] *Industrial Democracy* (1902), pp. 738 *et seq.*

part would be unavailing. The post-war depression in many industries is so much deeper and more widespread that any practicable reduction in wage-rates would hardly affect it. The example of the coal industry, in which a substantial reduction in wage-rates has been followed by increase in unemployment—and in losses by the employing firms—is pointed to as evidence of the futility of wage-reductions; and no attempt is made to gauge the extent to which demand is as inelastic for the products of other industries as it has proved to be for coal.

There is an explanation of the wage-earner's attitude in yet another change: wage-rates of direct labour never were the sole determinant of costs, and to-day they are probably less important than before the war. Loan charges, incurred in the boom and subsequent slump, although in process of liquidation, are still proportionately much heavier than before the war; rates and taxes and social insurance contributions are much heavier; indirect costs, which may be due to the level of wages, but not of wages in the industry concerned, for transport, financial services, etc., are higher; distributing costs have increased disproportionately. Hence the wage-earner, asked for concessions, fears that he is being asked to make a sacrifice, not to revive trade, but to lessen the losses, or increase the profits, of retailers, banks, loanholders, railways, and co-operating industries that may be more prosperous than his own. The consideration of wages is purely sectional, industry by industry and trade by trade; the need of industry, so far as wage-adjustments can meet it, is for an all-round reduction, which will affect the indirect costs, simultaneously with the direct costs, of every industry. No machinery exists for such co-ordinated and synchronised adjustment; on the contrary, the extension of collective bargaining has probably intensified and extended the influence of this sectional outlook of industry, by enabling industries, that before the war could not have resisted the pressures imposed by general trade depression, to hold up wages.

The general relations of wage-rates to other prices and to employment are also significant of maladjustment. Professor Bowley's new index-number of wages shows an advance (at the end of 1928) of 94 per cent., over the pre-war level, while the cost of living, as measured by the Ministry of Labour's index, has risen only 67 per cent., wholesale prices, as measured by the Board of Trade index, only 38 per cent., and the average price of British exports only 61·8 per cent. Wage-rates on the whole have been remarkably stable since 1922, although unemployment, as

measured by the registrations under the unemployment insurance scheme, has fluctuated from over 17 per cent. in 1922 to less than 10 per cent. in 1924, rising again to over 12 per cent. in 1925 (to 14·6 per cent. during the coal stoppage), falling to less than 9 per cent. in 1927, and rising again to over 12 per cent. in 1928. The chief instance of this maladjustment of wages is perhaps to be seen in the maintenance of the average level of wage-rates (in spite of a large reduction in the important item of miners' wages) since 1924, while other prices were being adjusted to the level required by the return to the gold standard. Money wages have been maintained (which means that real wages have increased about 8 per cent.), while the prices which British industry received for its products, as measured by export prices, were reduced on an average 14½ per cent., and the number of unemployed, comparing 1929 with 1924, increased. Comparisons of wage-movements with physical volume of output point to the same maladjustment. Real wages increased on an average by 12 per cent. between 1907 and 1924; a comparison of the Censuses of Production of 1907 and 1924 suggests that output per head did not increase, or increased only very slightly.[1]

It would appear, therefore, that wage-fixing authorities, acting independently of one another and disregarding the general economic situation, are maintaining wage-rates at a level at which existing industries cannot provide full employment; the considerations that explain their policy will not serve to explain away the unemployment that has accompanied it. The outlet for labour thus excluded, which was provided before the war by industries in which wages were not controlled, no longer exists. There remains for examination the possibility that new industries may provide an outlet, industry as a whole expanding sufficiently to absorb the excluded labour.

VII

Before the war we had no measure of industrial expansion; but there was no evidence of cumulative unemployment, so that industry must have expanded at much the same rate as the growth of population. Since 1923 we have had, in the unemployment insurance statistics, a record of the directions in which industry is expanding and contracting, which, with certain other information, supplies such a measure. It would seem that industry has, temporarily at any rate, lost its capacity of expansion. In

[1] A. L. Bowley, *A New Index Number of Wages*, pp. 4–5.

insured industry, which covers about three-quarters of wage-earning employment, the expansion of employment has been barely sufficient to absorb the diminished increase in the population seeking employment, without affording any relief to the mass of unemployment afflicting industry.

In certain directions there is expansion, but a closer examination compels us to discount any hopes derived from it. The largest single increase in employment has been offered by retail distribution, 360,000 or 31 per cent. between 1923 and 1928. A part of this may be at the expense of the small shopkeeper, who does not come into the insurance figures, in which case it, however, represents no net increase of employment; the greater part probably does represent a net increase, but an uneconomic increase. The Balfour Committee brought together material that suggests that retail distributing costs rose in greater proportion than prices generally between 1914 and 1925;[1] since then we have had a further great increase in the number of insured persons employed in retail distribution. This expansion of the retail margin, coupled with the enormous expansion of newspaper advertisement revenue in the same period and the elaboration of competitive selling organisation, has been sufficient to neutralise and make of no effect in the final price to the domestic consumer of British goods much of the writing down of capital, reduction of wages, and economies of re-organisation by which productive costs have been reduced. By keeping up the cost of living, while wholesale prices are falling, these costs also make it difficult to ask for any reduction in wages. So far, then, as retail distribution provides additional employment by its expansion, it probably does not succeed in compensating for a reduction in industrial employment, which the cost it imposes on industry involves.

The second group of expanding industries is the building, building material, and furnishing industries. Together these account for 211,000 increase in the five years. Here the explanation is partly the demand due to interruption of building during the war, partly the large subsidies given to encourage building. The war-time arrears have now been made up, so that further expansion will be limited to the needs of the increase in population and of replacement with the aid of further subsidies. The case of the third group is similar. These are industries in which expansion has been stimulated by protection, but would have

[1] The amount of expenses per £ of sales (in certain representative establishments) was on an average probably 35 per cent. greater than in 1913."—*Further Factors*, p. 117.

taken place without that stimulus, under the more economic stimulus of technical invention; motor manufacture and artificial silk are the chief members of the group. It is difficult to estimate how much of the growth was dependent on protection and merely a diversion from unprotected industries; but the aggregate expansion of the two together would not be sufficient to compensate for half the contraction in coal alone. So far from the expanding industries showing any likelihood of replacing permanently the loss in employment offered by the older, contracting industries, it would appear that they cannot be relied on even to provide continued employment for their present complement of workers. The new situation requires, if it is not to exaggerate the difficulty of the post-war unemployment problem, a more rapid growth of new industries, of expansion in new directions than before the war; actually the rate of expansion and capacity for growth appears to have seriously diminished.

VIII

My object in this review of wages and employment has been to discover the consequences of the change in methods of settling wages that I described at the outset. I have been led rather wide of my subject by the difficulty of distinguishing these consequences from those of other contemporary changes that have interacted with it. It remains in conclusion to point out that the loss of plasticity, and the adverse effects upon employment that may follow, are not necessary and inevitable consequences of the extension of collective settlements, but, in so far as they are attributable to it, due rather to an obvious defect in the machinery and current practice of collective bargaining than to anything inherent in collective bargaining as such.

The changes that distinguish the post-war wage situation, public control of wage-settlements and public relief of unemployment, are instances of the operation of the habit, described by Dr. Cannan as "proposing remedies for economic pressure without considering the question whether that pressure may not be an integral part of the existing organisation which cannot be removed without causing disaster unless some efficient substitute is provided." We have interfered with the harsh but effective correctives of wage-demands that restrict employment, namely, the loss of income by unemployment and the expansion of employment where wages are not held up. Either, therefore, we must

devise alternative correctives, or we must expect unemployment on a large scale from this cause alone.

The defect in the machinery for wage-negotiation to which the present unemployment points is the purely sectional character of its deliberations. It is no one's business to consider wages as a whole, there is no authority charged with the duty of reminding wages boards of their responsibility to industry in general. Collective bargaining must fail in securing an accurate adjustment of wages to industrial conditions so long as it is confined to negotiations over wages in individual trades and industries. If it is to continue, it must be supplemented by some device for ensuring that the negotiators in each trade and industry have regard to the effect of their determinations upon other trades and industries, and for compelling them to contemplate the needs of industry as a whole. The "barometer," by which, according to Mr. and Mrs. Webb, the organised industries were guided before the war, the extent of unemployment in their own industries, is no longer trusted; but, even if it were, it would be inadequate and misleading, since a trade union might pursue a policy that caused unemployment in other trades without causing unemployment in its own.

Moreover, by considering only its own needs and interests, an industry might pursue a policy that was restrictive in effect, though regulative in form. If all industries and all trades pursue such a policy—and all now have the requisite organisation—and maintain rates of wages that restrict employment, there will be excluded a mass of workers who must either be absorbed by new industries or remain unemployed. If there are new industries capable of absorbing them, well and good; but at the present time it would seem that there are not. The index or barometer, therefore, to which trade-union and arbitration authorities' attention should be directed, is not solely, or even principally, unemployment in the industry immediately under consideration but the rate of expansion of industry as a whole.

A wage-rate is a price, and every price is a function of every other price in the same field of demand and the same area of supply. The fixing of a wage-rate may, therefore, affect the demand-price and supply-price of every other kind of labour working for the same market. The organic nature of the system of wage-rates was abundantly illustrated during the war, when public intervention at one point led to reactions that compelled intervention at other points, and finally to the attempt to control all wages It has received a more painful illustration since the

war in the persistent unemployment and check to expansion that have accompanied the purely sectional handling of wage-problems. The task of co-ordinating wage-settlements in different industries, and of securing in each the consideration of such apparently remote factors as the productivity and rate of expansion of industry as a whole, may be too much for the spontaneous democratic machinery by which collective settlements are negotiated at present; but the alternative is almost certainly a breakdown of that machinery under the pressure of a growing problem of unemployment.

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DISTURBANCES OF EQUILIBRIUM IN INTERNATIONAL TRADE

1. THERE are two quantities that play a central part in the trade between nations, say between England and the rest of the world, to be called here Otherland. These are (1) the *rate of exchange* between English money and Otherland money, which we may express by the number of £s sterling that exchange against one dollar; (2) the *real ratio of interchange* between English stuff and Otherland stuff, which we may express by the number of units of some representative commodity made exclusively of English labour and materials which will exchange for one unit of some representative Otherland commodity made exclusively of Otherland labour and materials.

2. There are two sorts of equilibrium that are relevant to the trade relations of England and Otherland: exchange equilibrium and full equilibrium. Exchange equilibrium exists if the sterling price of anything that enters into trade, the dollar price, and the rate of exchange between sterling and dollars are so adjusted that—cost of carriage being ignored—there is no opening for profit by buying anything for sterling, selling it for dollars, and converting the dollars into sterling, or by buying anything for dollars and proceeding analogously. Full equilibrium exists if, *also*, (1) in each country the numbers of workers of given quality are so distributed over different occupations that a common wage-rate rules everywhere, and (2) this rate is so related to the conditions of aggregate demand and supply that in the sum total of all occupations employment is available for all would-be workers.

3. Let us suppose ourselves to start with a state of affairs in which full equilibrium rules. Such a state is, of course, always liable to be modified by temporary "accidents." We are not, however, here concerned with these. Apart altogether from them there may also on occasions supervene what may be called *once-for-all* changes, that is to say, changes that maintain themselves from year to year and are not merely temporary. When a change of this type is superimposed upon a previously existing state of full equilibrium, the conditions may or may not be such as to admit of a new state of full equilibrium emerging. In

other words, the postulated new arrangement may or may not be one that is capable of being maintained. This proposition, which is well illustrated by the problem of German reparation payments, may be developed into a twofold study enbracing respectively (1) the conditions in which a breakdown must occur, and (2) the form in which a breakdown, if it occurs, will manifest in various circumstances. I shall examine these matters, first as they would appear in a barter economy, and secondly in modern money dress; it being premised, for the purposes of this discussion, that the reparations-paying country is not free to cover its reparation debts by new borrowings abroad or by drawing upon resources which otherwise its citizens would have invested abroad.

4. Under a barter economy Y's government may be obligated to hand annually to W's government either R units of linen or K units of cloth. If the obligation is in terms of linen, it can or cannot be fulfilled according as Y's government can or cannot raise annually from its citizens as much as R units of linen. Whether it can or cannot do this depends *prima facie* [1] entirely on conditions internal to Y. If the obligation is in terms of cloth, it can or cannot be fulfilled according as Y's government can or cannot raise annually from its citizens enough linen to purchase in the market K units of cloth. This depends partly on how much linen Y's government can raise annually from its citizens—as before, a purely internal matter—and partly on how much cloth a unit of linen will purchase when Y's government is attempting, by sales of linen, to buy given quantities of cloth.

5. It will clarify our ideas to set out in symbols the principal relevant quantities. Let B be the maximum quantity of linen that it is feasible for Y's government to raise annually from its citizens for reparation purposes. This quantity depends partly on the size and distribution of the national real income in Y; partly on the efficiency of its tax technique; partly on the attitude of mind of potential tax-payers, both generally and in relation to the justice of the reparation claims; and partly on the amount of revenue that the government is raising for various forms of real expenditure and for transfer expenditure. Let $\phi(l)$ be the quantity of cloth that l units of linen exported from Y avail to purchase. If then the stipulated annuity is R units of linen, it can be paid provided that $B > R$. If the annuity is K units of cloth it can be paid provided that there is any value of l between B and 0 in respect of which $\phi(l) > K$. It is necessary to state the conditions thus, instead of postulating simply that $\phi(B) > K$, because the nature

[1] But cp. *post*, § 6.

of W's demand for linen may be such that, while B units of linen would not avail to buy K units of cloth, some quantity of linen less than B would avail to do this. If conditions of that sort prevail, Y's government may need, in order to fulfil its reparation obligations, to forbid all export of linen on private account and itself to sell abroad a quantity deliberately restricted with a view to securing a high price in terms of cloth. This, however, is an exceptional and improbable state of things—so long, at least, as we are considering Y's exports in general and not particular exports—and need not be studied further.

6. If, apart from reparations, there is no trade at all between Y and W (the rest of the world), it is plain that the maximum annuity payable in linen, which Y's government can raise and hand direct to W's government, is the same whatever tariff policy W adopts. The maximum annuity payable in cloth is not thus independent of W's tariff policy; for, if W imposes duties upon imports from Y, the demand in terms of cloth of W's citizens for linen will be diminished, and, in order to obtain a given quantity of cloth, Y's government will have to provide a larger quantity of linen—the amount of the difference depending on the size of the duty and the form of W's demand for linen—than would otherwise have been necessary. If, apart from reparations, some trade would have taken place, this sharp antithesis no longer holds good. For import duties imposed by W will, in general, cause the citizens of Y to obtain, for a given amount of work, an income of things yielding them less satisfaction than the income of things they would have had if their exchange of linen against cloth had not been obstructed, and so will make the maximum levy in linen that their government can raise from them smaller than it would otherwise have been. But in this case, as in the last, import tariffs imposed by W will contract Y's capacity to pay much more seriously for cloth annuities than for linen annuities.

7. An annuity system expressed in linen breaks down if $R < B$, that is to say, if it proves impracticable for Y's government to collect from its citizens for payment abroad as much linen as the annuity requires. The breakdown manifests as a failure to solve Y's budget problem and cannot manifest in any other way. An annuity system expressed in cloth breaks down when there is no quantity of linen less than B that suffices to purchase K units of cloth in the market. If conditions are such that an advance beyond B in the quantity of linen offered would involve a nearer approach towards the acquisition of K units of cloth—whether or not there is any quantity of linen that would yield

that quantity of cloth—the breakdown may again be said to manifest as a failure to solve Y's budget problem; but, if they are such that, in the neighbourhood of B, an increase in the linen offered involves a decrease in the cloth acquired—provided, of course, that there is no quantity of linen less than B that will yield K units of cloth—the breakdown is more properly described as a failure to solve Y's transfer problem.

8. Under a money economy the reparations annuity will no longer be expressed in real terms, but in money terms: either as so much, say, German money (marks) or as so much foreign money (sterling). Plainly an obligation expressed in either of these forms may have any number of different real meanings according to what the purchasing power of marks in terms of linen, or of sterling in terms of cloth, may be. In order, therefore, to render our problem definite we must make some assumption about these purchasing powers. Let us suppose that the purchasing power of sterling in terms of cloth is fixed, so that a £ sterling may, for our purposes, be regarded as equivalent to a defined quantity of cloth.[1] As regards marks, three arrangements are possible. Under (1) no obligation is imposed on Germany as to the value at which it will hold the mark; under (2) Germany is obliged to keep the mark at a constant value in terms of linen; under (3) she is obliged to keep it at a constant value in terms of sterling. Reparations annuities expressed in marks have no meaning under arrangement (1), and will not, in fact, be arranged for, since Germany could render them worthless at will; under arrangement (2) they are equivalent to annuities expressed in linen: under arrangement (3) to annuities expressed in cloth. Under all three arrangements annuities expressed in sterling are equivalent to annuities expressed in cloth. Reparation terms equivalent to linen and cloth annuities respectively break down precisely where reparation terms embracing actual linen and cloth annuities would break down.

9. If, under a money economy, the conditions are such as to imply a breakdown, this may manifest in several different ways according to the form of the debt and the obligations governing German monetary policy. With a debt reckoned in marks, subject to the condition that the mark price of linen be kept constant, the breakdown can only appear as a failure on the part of the German Government to collect sufficient marks through taxes

[1] Under the Dawes plan the fact that this assumption may in practice fail is recognised in a provision which allows for adjustment in the size of Germany's gold annuity should the real value of gold change substantially—a proviso not present in the Young plan.

for delivery to Germany's creditors: there is, that is to say, a failure to solve the budget problem. With a debt reckoned either in marks or in sterling, subject to the condition that the mark-sterling exchange be kept constant—these two sorts of debt are, of course, precisely equivalent—a breakdown, if it occurs, must again appear as a failure on the part of the German Government to solve the budget problem—so long, of course, as the obligation to maintain the exchange is not violated. With a debt reckoned in sterling, subject to no obligation about exchange rates, or subject to an obligation in that matter which is violated, the breakdown may take a different form. The German Government is now free to obtain marks for reparations account *ad libitum* from the printing press, and thus, so far as money figures are concerned, is subject to no budget limit. This does not mean, however, that it is subject to no limit in respect of the real (linen) values which its money revenue represents. There is necessarily always a limit of this character. If the stipulated annuities involve a real levy that oversteps it, the breakdown manifests as a depreciation in the mark exchange, so rapid that no quantity of marks will suffice to buy the required quantity of sterling. That is to say, it manifests as a failure to solve the transfer problem.[1]

10. We now turn to consider more particularly once-for-all changes that are able to maintain themselves; in respect of which, that is to say, a breakdown does not occur. Such changes fall into two main groups according as they arise out of (1) enduring alterations in the supply of England's money or of Otherland's money, or (2) enduring alterations in the real demand of Englishmen (expressed in their stuff) for Otherland's stuff or alterations in the real demand of Otherland for English stuff. In the ultimate adjustment due to changes falling into the first group, it is clear that the real ratio of interchange between England's and Otherland's stuff will be unmodified. In those due to changes falling into the second group this ratio will be modified in general; but

[1] In so far as private German traders have sterling claims on foreigners, while foreign traders have mark claims on Germany—the two sorts of claims off-setting one another at the old exchange rate—the fall in the exchange creates a balance of sterling on Germany's private account which it may be possible for the Government to use for reparations. If both sets of claims are in the same currency no balance either way is created. If German traders' claims are in marks, and foreign traders' claims on Germany in sterling, the fall in the exchange creates a debit in sterling on her private account, so that to the difficulties of the State there are added further difficulties of individuals. Cp. Graham, "Self-Limiting and Self-Inflammatory Movements in Exchange Rates" (*Quart. Journ. of Economics*, February 1929, pp. 221 et seq.).

it will not be modified in the special case where both real demands alter and the alterations balance. Thus, if England demands more of Otherland's stuff and Otherland demands more of England's securities, and the relevant quantities are suitably adjusted, the real ratio of interchange between England's stuff and Otherland's stuff is unaltered in spite of the fact that the quantity of purchases and sales passing between them is increased.[1] It may perhaps be suggested that, in addition to the two types of once-for-all change distinguished above, there is a third type, namely, a decision by a government to force up the rate of exchange between its money and the monies of other countries in some defined proportion. Clearly, however, a mere decree by, say, the English Government that a unit of sterling shall exchange for 10 per cent. more dollars than before can accomplish nothing. Measures must be taken to make the decree effective. It is these measures, not the mere decree, that are responsible for whatever happens; and a brief reflection shows that the only measures available consist in action designed to bring into play either factors that decrease the supply of sterling, or factors that increase the real ratio of interchange between English stuff and foreign stuff—by increasing the demand for foreign stuff in terms of English stuff or by decreasing the demand for English stuff in terms of foreign stuff—sets of factors that have already been taken into account.

11. At this point it may be well to insert a caution against possible misunderstandings. At first sight a careless reader may be tempted to suppose that a shift in the real ratio of interchange in favour of any country necessarily implies a gain to that country, and a converse shift a loss. This is not so. The real ratio of interchange will be turned in a country's favour if, other things being equal, its demand for foreign goods falls off. If the cause of this change is improved capacity to make for itself the goods that it used to import, the country's position will be improved. But, if the cause is worsened capacity to make the goods that it used to export, its position will be worsened; unless, indeed, the foreign demand for these goods is so inelastic that a reduced import of them evokes in payment for them an increased (absolute) quantity of imports. If the cause of the fall in our country's demand for imports is a diminished desire on its part for these goods, unaccompanied by any other change, the effects on the

[1] It may be noted in this connection that the chief reason why the real ratio of interchange usually moves very little in the face of *short-period* swings in the respective demands of England and Otherland for material commodities is that securities and bankers' promises are used to swell the offer of the country whose supply of these commodities is temporarily contracted.

quantities of exports and imports will be the same as in the preceding case, but, since the satisfaction yielded by a given quantity of imports will be smaller, the prospect of the country's position being, on the whole, improved will be less good. When the real ratio of interchange is turned in a country's favour, not through a decline in its demand for foreign goods, but through an expansion, whether due to altered productive efficiency or to altered desire, in the foreign demand for its goods, the position of the country, regarded as a single homogeneous unit, is necessarily improved. But, should its demand for foreign goods have an elasticity less than unity, the enhanced foreign demand will cause the volume of its exports to contract; and, therefore, when account is taken of the fact that in real life countries are not homogeneous units, but are divided up into different industries between which mobility is very imperfect, it *may* happen that the disorganisation caused in the country's export industries will do it more harm, in a wide sense, than the cheapening of imports does it good.

12. When a once-for-all change of any of the sorts distinguished in § 10 has been superimposed upon a previously existing state of full equilibrium and its consequences have worked themselves out, a new state of full equilibrium (which, as we have seen, implies, as part of itself, a state of exchange equilibrium) will be established. To enable us to state the conditions implied in this equilibrium in a manageable form applicable equally whether the real ratio of interchange and the quantity of international trade are or are not altered, we must assume (1) that the law of constant costs rules in all English industries, so that a shifting of workers between them, within the range relevant to our problem, does not involve a change in the relative costs of producing their goods; and also (2) that, *if* a change in productive efficiency in England takes place, it is general to all English industries. These assumptions are not, of course, required when the disturbing cause is purely monetary, so that both the real ratio of interchange and the quantity of international trade are unaltered; but they are required to make possible, in a reasonably simple form, any generalised statement.

13. At any assigned interval after the disturbing cause has begun to operate let us write as follows:

(1) the new sterling price of pure English export goods divided by the old $= {}^{s}p_{e}$;

(2) the new dollar price of pure English export goods divided by the old $= {}^{d}p_{e}$;

(3) the new sterling price of pure English import goods divided by the old $= {}^{s}p_i$;

(4) The new dollar price of pure English import goods divided by the old $= {}^{d}p_i$;

(5) the new sterling price of pure English home goods divided by the old $= {}^{s}p_h$;

(6) the new sterling price of a mixed good made in England, comprising m units of pure home goods and n units of import goods, divided by the old $= {}^{s}p_m$;

(7) the new sterling wage in export making industries divided by the old $= {}^{s}w_e$;

(8) the new sterling wage in home industries divided by the old $= {}^{s}w_h$,

(9) the new rate of exchange (quantity of dollars purchased by a £) divided by the old $=$ R;

(10) the new real rate of interchange (quantity of pure import goods purchased by a unit of pure English export goods) divided by the old $=$ K;

(11) the new real rate of wage—to workers supposed to purchase pure home goods, pure import goods, and mixed goods (as defined under 7) in proportions a, b, c—divided by the old $=$ W;

(12) the new marginal productivity of English labour (if there has been a general change in efficiency) divided by the old $=$ E.

14. The conditions necessary to exchange equilibrium are then satisfied, provided that

$$\mathrm{R} = \frac{{}^{d}p_e}{{}^{s}p_e} = \frac{{}^{d}p_i}{{}^{s}p_i};$$

and

$$\mathrm{K} = \frac{{}^{s}p_e}{{}^{s}p_i} = \frac{{}^{d}p_e}{{}^{d}p_i}.$$

These equations, so far as England is concerned, reduce to

$${}^{s}p_e = \frac{1}{\mathrm{R}}\,{}^{d}p_e \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \qquad \text{(I)}$$

$${}^{s}p_i = \frac{{}^{s}p_e}{\mathrm{K}} \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \qquad \text{(II)}$$

When these conditions are satisfied, exchange equilibrium prevails.

15. In order that *full* equilibrium may prevail, the following further conditions, additional to the foregoing, must also be satisfied:

$$^{s}p_h = {^{s}p_e} \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad \text{(III)}$$

$$^{s}p_m = {^{s}p_e}\left\{\frac{m + (n - m)\text{K}}{n}\right\} \quad . \quad . \quad . \quad . \quad . \quad . \quad \text{(IV)}$$

$$^{s}w_e = \text{E}^{s}p_e \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad \text{(V)}$$

$$^{s}w_h = \text{E}^{s}p_e \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad \text{(VI)}$$

$$\text{W} = {^{s}w_e}\frac{a + b + c}{a^{s}p_h + b^{s}p_i + c^{s}p_m} = \text{E}\left\{\frac{a + b + c}{a + b\text{K} + c\dfrac{m + (n - m)\text{K}}{n}}\right\} \quad \text{(VII)}$$

16. Where K = 1,

condition (II) reduces to $^{s}p_i = {^{s}p_e}$,

condition (IV) reduces to $^{s}p_m = {^{s}p_e}$,

and condition (VII) reduces to W = E.

Where E = 1,

condition (V) reduces to $^{s}w_e = {^{s}p_e}$,

condition (VI) reduces to $^{s}w_p = {^{s}p_e}$,

condition (VII) reduces to $\text{W} = \left\{\dfrac{a + b + c}{a + b\text{K} + c\dfrac{m(n - m)\text{K}}{n}}\right\}$.

Where both K and E = 1,

condition (VII) reduces to W = 1.

17. Now, whatever the cause of disturbance may be, it is clear that the rate of exchange and the relative sterling and dollar prices of any goods that enter regularly into trade between England and Otherland must, in all ordinary circumstances, become so adjusted to one another in a very short time in such wise that no special exchange profit or loss can be made by merchanting them. Apart from cost of carriage, the sterling price of any given batch of exports from, or imports to, England must, when converted into dollars, be equal to the dollar price of the same batch. This implies that, if we make up a batch of import goods and export goods mixed together, the sterling price of a dollar (*i.e.* the rate of exchange) cannot diverge appreciably from the sterling price of the batch divided by the dollar price of the batch. That is to say, the conditions of exchange equilibrium, namely,

$$^{s}p_e = \frac{1}{\text{R}} \cdot {^{d}p_e} \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad \text{(I)}$$

$$^{s}p_i = \frac{^{s}p_e}{k} \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad \text{(II)}$$

will very rapidly be satisfied. But the satisfaction of this condition does not imply the satisfaction of the other conditions

necessary to full equilibrium. These are likely to be achieved much more slowly, for the reason that they may involve alterations in money rates of wages—which are notoriously subject to friction—or the shifting of workpeople between different occupations, or both these things together.[1] When these other conditions are known to be satisfied, we may fairly presume that conditions proper to a new exchange equilibrium are also satisfied; but it is not legitimate to infer from the presence of exchange equilibrium that full equilibrium is established. The practical moral is that, when the so-called purchasing power parity analysis is used to test the claim that the full effects of a monetary disturbing cause have worked themselves out, we must not employ price indices confined to traded goods. Ideally, traded goods ought not to be admitted in any degree either directly or indirectly (through goods which embody traded materials) into the indices employed. This is, of course, impracticable. It is not, however, impracticable to employ price indices in which traded goods play relatively a small part, *e.g.*, indices of retail prices embodying the wages of retailers in addition to wholesale prices. In so far as traded goods do enter into the indices employed, until full adjustment has actually been attained it will always appear to have been more nearly attained than it has been in fact.

18. Next, diminishing somewhat the *extensiveness* of our inquiry, let us render it, over a limited range, somewhat more *intensive*. The equations leading up to conditions (I) and (II)

[1] The nature of these shifts, of course, varies with the nature of the change, if any, that has come about in the conditions of real reciprocal demand. Thus, concentrating upon the effects produced in England, we must distinguish between (1) a rise in England's real demand for Otherland's stuff consequent upon an increase in England's desire for that stuff; (2) a similar rise consequent upon an increase in England's efficiency in producing export goods; and (3) a fall in Otherland's real demand for English stuff, no matter how caused. The adjustment, which the new full equilibrium requires in respect of the quantity of England's exports, the quantity of her imports, and the number of her workpeople engaged in making exports, will be different according to which of the above types of change has occurred, and also according to the form of the two reciprocal demand schedules. If the foreign demand for England's exports has fallen off, in the new equilibrium there will, *in general*, be fewer workpeople than before in the export trades of England; and, if the foreign demand has expanded, more workpeople. In the special case in which England's real demand for Otherland's stuff has an elasticity less than unity (*e.g.* perhaps if her imports are chiefly wheat), a fall in foreign demand will expand, and a rise contract, the number of England's workpeople engaged in export industries. If England's demand for imports falls off because of diminished desire, there will be fewer men in England's export trades; in the reverse case more men. If England's demand falls off because of diminished productive efficiency there will be fewer men engaged in those trades, should Otherland's demand have an elasticity greater than unity, and more, should it have an elasticity less than unity: in the reverse case opposite consequences will follow.

in § 14, when combined together, yield $K = R \cdot \frac{{}^{s}p_e}{{}^{d}p_i}$. This equation has large practical significance. Let us, for the purpose of the present argument, suppose that the price level in the countries other than the one in which we are primarily interested is fixed. This implies that ${}^{d}p_i = 1$. Hence we have $K = R \cdot {}^{s}p_e$, or ${}^{s}p_e = \frac{K}{R}$. That is to say, if the real ratio of interchange is unaltered, the English price level will be unaltered, provided that the rate of exchange also is unaltered: should that be altered, the English price level will be altered in inverse proportion. Further, if the real ratio of interchange is altered, it is impossible for both the rate of exchange and the English price level to be unaltered; but the English price level will be unaltered if the rate of exchange is altered in the same proportion as the real ratio of interchange, whereas, if the rate of exchange is unaltered, the English price level will be altered in the same proportion as the real ratio of interchange. Thus, on the assumptions here taken, if an influence is introduced, which, left to itself, would move the real ratio of interchange against a country, that country's price level can be prevented from falling if, and only if, either (1) a contrary influence is invoked to prevent the real ratio of interchange from falling, or (2) the rate of exchange falls in the same proportion as the real ratio of interchange. The most obvious way of invoking an influence to prevent the real ratio of interchange from falling is for the country affected to offer promises for sale abroad, thus causing the foreign demand for its stuff (including these promises) to rise. Thus during and for a little time after the war the excess purchases of the Allies from the United States were balanced by American loans; and, over the period of the Dawes plan German reparation payments were similarly offset by American loans. A like effect can be produced if the initiating cause of change is a fall in the foreign demand for, say, English stuff, and if England happens to be a country which, in the old equilibrium, has been accustomed annually to make large investments abroad. The Government, by forbidding or suitably restricting foreign investment, that is, by preventing its citizens from purchasing certain sorts of foreign stuff, namely, promises, can cause the English real demand schedule for the sum-total of available foreign stuff to fall; and, provided that the former normal scale of foreign investment was sufficiently large, to fall far enough to balance its own or its citizens' new requirements. There seems no reason why a new equilibrium

attained in that way should not be permanent; but it obviously implies a contraction in the scale of English export industries. The same effect on the real ratio of interchange, unaccompanied by this last incident, can evidently be produced by government prohibitions against a sufficiently large category of imports. All the above devices were employed by several European Governments anxious to maintain their exchanges in the difficult period following the war. When an influence has been introduced that turns the real ratio of interchange against a country, and conditions are such that this influence cannot be offset by a cancelling influence, either the price level or the rate of exchange in the country must fall in such a way as to match the fall in the real ratio of interchange. Thus, assuming sterling and dollar prices to be constant, suppose that the real ratio of interchange, in consequence of the need for reparation payments, moves against Germany 10 per cent. This implies either a 10 per cent. fall in the German internal price level or a 10 per cent. fall in the sterling value of marks, or a fall of *a* per cent. in the German price level *plus* a fall of approximately (10-*a*) per cent. in the mark exchange. One or other of these things *must* happen. The idea that a reparation annuity can be provided by Germany out of its own resources—we have deliberately ruled out foreign borrowing —without marks becoming *either* less valuable in terms of sterling, *or* more valuable in terms of linen (*i.e.* German export goods) than they would otherwise have been is illusory. One or other of these two changes is a necessary condition of the new equilibrium. If the German price level is maintained, the German exchange must fall; if the German exchange is unaltered, the German price level must fall. It is in the power of the German Government, by regulating the volume of its currency, to maintain either the mark exchange or the mark price level. It is not in its power, in the absence of foreign borrowing, to maintain both. Since in the actual arrangements for German reparation payments it is contemplated that the mark exchange shall be maintained at approximately 20 marks per £, it is necessary for the new equilibrium, when reparation annuities come to be paid, not out of borrowings, but out of Germany's own resources, that the volume of German money shall be contracted and German prices in terms of marks reduced below what, other things being equal, they would have been in the absence of reparation payments.

19. In a perfectly frictionless world it would make no difference to a country whether a falling off in the foreign demand for its stuff, resulting in an adverse movement in the real ratio of inter-

change, manifested in the form of a drop in the rate of exchange or in that of a drop in the price level. In either case real incomes and real wages (so far as money wages are spent on imports) would be diminished; and in either case some workpeople would have to shift away from the export trades into home trades. Similarly, it would make no difference whether an increase in a country's demand for foreign stuff to provide reparations, leading, in like manner, to an adverse movement in the real ratio of interchange, manifested through a fall in the rate of exchange or through a fall in the price level. In this case real wages would fall while workpeople were shifted *into* the export trades. Whether, over and above these things, money wages and money prices fell in a common proportion would not matter. The actual world, however, is not frictionless. The real movements, *i.e.* the fall in real wages and the shift in the distribution of workpeople, will neither of them take place smoothly; and frictional resistance to them is bound for a time to produce unemployment. When conditions are such that, besides the real movement, there is also a nominal movement—*i.e.* a fall in money incomes associated with a parallel fall in money prices—this movement, though it would, *when completed,* injure no one, will, nevertheless, also encounter friction. The sum-total of frictional resistance, and so of the unemployment that this generates, will, therefore, be *pro tanto* larger if the new equilibrium has to be reached through a fall in the price level than if it is reached through a fall in the rate of exchange. In any event the frictional resistance on the part of wage-earners, whether against a real wage reduction only or against a real reduction *plus* a further nominal one, is likely to be more substantial in industries sheltered from foreign competition than in industries exposed to it. In so far as this is so the wage-earners in the unsheltered industries suffer an extra injury through having to pay "unduly" high prices for the things and services produced by their sheltered colleagues. If the State chooses it can, of course, obviate frictional resistance on the part of wage-earners—at all events for a time—by levying taxes on non-wage-earners and using the proceeds in wage subsidies sufficient to prevent either a real or a nominal fall in rates.

A. C. PIGOU

RETAIL PROFITS

Apart from earnings, hours of work and taxation, no economic subject makes so direct and vital an appeal to the average person as the subject of retail prices. And since a considerable proportion of the retail price of any commodity passes into the hands of the retailer, and since the retailer is the connecting link between the economic and domestic worlds, there is always a tendency, when prices are discussed, to suggest that the cost of living is maintained at an unjustifiably high level as a consequence of the margin which the retailer demands.

In respect of food prices, in particular, this view has, for years, been very pronounced. Various Commissions have inquired into the subject, and the result of the last investigation by the Royal Commission on Food Prices (1925) resulted in the establishment of a Food Council. On the whole, official findings have been very contradictory (cf. reports of Linlithgow Committee), and it certainly cannot be said that a satisfactory verdict on the retailer has yet been passed. The need for some decisive pronouncement is accentuated by the fact, announced by the Empire Marketing Board, that farmers and other producers, both at home and overseas, are continually asking for some satisfactory explanation for the great disparity between wholesale and retail prices of their products; while even manufacturers, who for the most part recognise high selling costs as an inevitable and necessary feature of modern industry, do nevertheless, in some cases, question whether the margin they allow the retailer on their branded goods may not be to some extent excessive.

A satisfactory answer to the whole question depends almost entirely upon whether the necessary statistical and circumstantial facts are available. Because of the unwillingness of traders to disclose the true facts of their businesses, such information, both official and private, is strictly limited and often unreliable. But enough is known, partly as the result of the writer's investigations,[1] to enable a fairly reliable estimate of the range of retail profits to be put forward, and to explain the true facts of the retailer's economic position. In the circumstances, misstatements are bound to occur to some extent, but will do

[1] Mainly carried out for Messrs. Cadbury Bros., Ltd., as a piece of research.

no harm if, by arousing criticism, they lead to a fuller and more exact understanding of the subject.

Extent of the Retail Margin of Gross Profit

The retail margin of gross profit is the proportion of the selling price which passes to the retailer for purposes of net profit and expenses. It is an index to the cost of retailing, and is therefore a matter of first consideration. The popular belief is that this margin is $33\frac{1}{3}$ per cent. or over. This probably results from the absurdity of those writers and accountants who calculate profits on cost. The great bulk of commodities is sold on the basis of a considerably narrower margin than $33\frac{1}{3}$ per cent. In general, the margins show an extraordinarily wide range of variation, extending from 4 per cent. in the case of sugar to over 50 per cent. in the case of certain fashion goods. Even in respect of any one commodity there is considerable variability depending on the quantities in which the retailer buys, and other factors. But generally speaking fairly constant averages exist which enable us to group commodities under their respective margins. This has been done in the case of a limited number of articles in the following Table.

Table I

[(c) denotes that the margin is controlled or "fixed."]

Over $33\frac{1}{3}$ per cent.	$33\frac{1}{3}$ per cent.	25 per cent.
Fashion goods (ladies' shoes, expensive millinery, etc.). Expensive flowers and fruits. Ironmongers' scales (c).	Jewellery. Furniture. Boots and shoes (c). Underwear (c). Drugs (c). Toilet soaps (c). Chocolates (c). Newspapers (c).	Fish. Fruit and Vegetables. Margarine (c). Jam (c). Toilet soap. Metal polish. Underwear (c). Boots and shoes. Wines and spirits (c).
20 per cent.	**18 to 14 per cent.**	**Under 14 per cent**
Meat. Marmalade (c). Soap (laundry) (c). Biscuits (c). Cigarettes (c).	Cheese (Eng.). Flour. Tea. Lard. Soap (laundry) (c). Bacon (import.).	Eggs. Butter. Bacon (Eng.). Cheese (import.). Meat essence (c). Condensed milk (c). Sugar (4 per cent.).

It will be seen that most essential food-stuffs and the less expensive grades of most other commodities are sold on a gross margin of 25 per cent. and under. It need scarcely be pointed out that the margin of gross profit frequently affords no indication of the absolute cost to the retailer nor the absolute net

profits he may make. All that can be said is that a narrow margin of gross profit, if associated with stability and efficiency of sérvice, is a sociological advantage.

Determining Factors

Before entering into the main question as to what the actual expenses and net profits of retailers are, it will be well to consider briefly the factors which determine the margin of gross profit.

Buying and Selling Policy.—Where the retailer is free to buy and sell as he pleases, the margin of gross profit will partly depend on what policy he adheres to. Although retail prices are ultimately regulated by competition and expenses and effective demand, some retailers (including retailing manufacturers) specialise in a high price and some in a low price policy. But the retail price is only one end of the gross margin. The extent is equally determined by the price at which the retailer buys. If he purchases large quantities for cash, the margin will be widened unless, as is usually the case, he makes a corresponding reduction in the retail price. This is the policy of many of the popular "chain" stores which enables them, in spite of higher expenses per cent. turnover, to compete successfully with, and even oust, the small individual trader. But such a policy, while it stimulates production and confers benefit on the public, results in lower prices for the primary producer, and will be to his disadvantage unless he can make a corresponding reduction in his unit costs. In the case of a great number of commodities, however, the individual retailer's policy is controlled, or partly controlled, by advertisement.

Branding and Advertising.—As indicated in Table I, commodities may be broadly divided into two classes, the branded and the non-branded. The former, of course, are usually highly advertised and the margins of gross profit are usually fixed or controlled. An examination of Table I will show that controlled commodities tend to be associated with the wider margins, though there are two interesting exceptions in the 14 per cent. group. Where two controlled commodities of the same designation appear in different groups (as in the case of toilet soap), that in the lower group is specifically advertised, while that in the higher is not. Thus advertisement (or rather the partial monopoly to which it gives rise) does not always confer on the retailer an extra wide margin of gross profit. Furthermore, while the margins of branded goods are for the most part

definitely regulated, there is, in practice, a certain amount of freedom, as the following table shows :—

TABLE II

Firm.	Trade Price Fixed?	Re-sale Price Fixed?	Re-sale Price insisted on?	Labelled with Price.
Cadbury Bros. (Chocolates)	Yes.	Yes.	As far as possible.	Usually.
Imperial Tobacco Company	Yes.	Yes.	Yes.	No.
Lotus Shoes	Yes.	Yes.	Yes.	Yes.
Wolsey Underwear	No.	No.	No.	No.
Lever Bros. :				
Grocery Soaps	Yes.	Yes.	No.	No.
Chemist's Lines	Yes.	Yes.	Yes.	No.
Allen & Hanbury (Patent Foods)	Yes.	Yes.	Yes.	No.
Reckitts & Sons (Metal Polishes)	Yes.	Yes.	No.	No.
Bovril Ltd.	Yes.	Yes.	As far as possible.	No.
Jaegers Ltd. (Woollens)	Yes.	Yes.	Yes.	In some cases.
Manfield & Sons (Boots)	Yes.	Yes.	Yes.	Yes.
"Daily News"	Yes (lower price for outside of London).	Yes.	Yes.	Yes.

The branding of commodities is rapidly becoming more general even in respect of ordinary food-stuffs, and the general effect will be to render the individual retailer less and less responsible for either the prices he sells at or for the prices at which he buys.

Joint Supply.—The very narrow margins on certain commodities are partly rendered possible by "joint supply." Somewhat in the same way as in railway transport the higher priced goods (*e.g.* tobacco) help to pay for the bulkier goods of lower unit value (*e.g.* coal), so, in retailing one commodity with a wide margin (*e.g.* jam) helps to pay for the retailing in the same grocer's shop for a commodity with a lower margin (*e.g.* butter, and especially sugar, on which the net profit is practically nil). In the meat trade a very wide margin is associated with expensive cuts, while the inferior "cuts" are actually sold at a loss, the average for all "cuts" being about 20 per cent. in a quick cash trade. Some things are cheap because others are expensive. To some extent, in retailing the consumers of luxuries benefit the consumers of necessities. The ubiquitous sale of cigarettes and sweets is rendered practicable only because these articles are either sold together or in conjunction with other goods. Joint

supply, therefore, even if it does not directly reduce margins, may permit of an enormous extension of services for public convenience and for the stimulation of sales.[1]

Cost of Retailing.—Taking cost in its widest sense to include labour, managerial skill, risk, rent, working capital and rate of stock-turnover, it is obvious that some commodities cost more to retail than others. Cost is, of course, one of the chief factors determining margins of gross profit. Jewellery and furniture (33⅓ per cent.) involve higher costs than fish and fruit (25 per cent.); fish and fruit, higher costs than flour and tea (14 per cent.). Amongst branded articles, boots and shoes and underwear cost more to retail than biscuits and cigarettes.

The following data, representative of ordinary shops doing a very good trade in central positions in the smaller provincial towns, give some idea of the costs involved in the retailing of different classes of commodities.

TABLE III

Trade and Nos. of Shops studied.	Value of Stock at Selling Price.	Rent.	Rate of Stock Turn-over per annum.[2]	No. of "lines" carried.	Average No. of Sales-people.	Value of average Purchase.	No. of Customers per week.	Mins. to serve Cash Customers.
Grocery and Provisions (12)	£1,794	£200	10	350		3s.	2,300	
Meat (8)	£83	£175	125	10		2s. 6d.	1,500	
Tobacco and Accessories (12)	£520	£150	10	180		1s. 4d.	1,500	1
Fruit and Vegetables (12)	£65	£125	80	40		1s. 6d.	1,500	1
Fish (4)	£29	£125	200	15		1s. 6d.	1,500	2½
Millinery (4)	£260	£200	30	50		15s.	200	10
Boots and Accessories (8)	£2,995	£240	2·5	150		12s.	240	6
Confectionery (Chocolates) (16)	£173	£85	9	100		10d.	675	¼
Newspapers (4)	£4	£90	313	10		1d.	6,000	
Furniture and Furnishings (3)	£14,976	£500		125		£6	120	30

The above data give only a general idea of differences in costs, but are sufficient to show that to retail some commodities requires more labour, capital and responsibility than is required by others. One might expect wide margins of gross profit to be

[1] It is possible to regard the narrow margin of cigarettes as "predatory" on the confectionery and other trade margins.

[2] It should be noted that this is usually associated with degree of perishability (physical or fashion-caused).

always associated with high costs. But this is not found to be the case. For example, in the cash meat trade, and especially in the grocery trade, the margins of gross profit are relatively narrow, whereas the real costs are distinctly high. In the confectionery and newspaper trades, on the other hand, the margins are exceptionally wide and the real costs very low. To explain these anomalies one has to take into account the additional and most important factor of turnover.

Competition and Demand.—The margin of gross profit is greatly influenced by the demand for a certain commodity and the number of retailers supplying that demand. Effective demand divided by the number of shops gives the average shop-turnover or sales. If this is very small a wide margin of gross profit will be necessary; if considerable, a narrower margin will suffice.

There are approximately 500,000 shops[1] in England and Wales, and assuming that, averaged out, every man, woman and child spends 16*s.* per week in shops, this gives £62 per week as the turnover of the average shop. If this result is approximately correct (and it agrees fairly well with ascertained figures to be given later), then it is obvious that a fairly considerable margin of gross profit is necessary with a turnover of this magnitude.

The following table shows the average turnover and the number of shops selling different commodities in four of the smaller provincial towns in England, two industrial and two non-industrial.

The information in this table helps to explain the apparent anomalies referred to in connection with meat and groceries, and confectionery and newspapers. In the case of the former both the minimum and average turnovers are relatively high, whereas in the case of the latter they are relatively low.

But while the margin of gross profit on any commodity or group of commodities is influenced by the number of competitive retailers, the number of competitive retailers is also influenced by the margin of gross profit. Is, for example, the margin of gross profit in the confectionery trade wide because the shops are so numerous, or are the shops numerous because the margin is so wide? In any economic question, to distinguish between cause and effect is often extremely difficult, and this is particularly true in regard to retailing. Perhaps a sound view to take is that most *small* shops are "marginal" (*i.e.* just earn a living

[1] Excluding street stalls and barrows.

TABLE IV

Trade and Margin of Gross Profit.	Number of Shops (per 200,000 residents and 200,000 occasional visiting customers).	Average Turnover per shop per week, and range for all Shops.	Total Effective Demand per week.	Number of Shops per £10,000 Effective Demand per week.
Grocery and Provisions, 15%.	380	£90 (£50 to £400) 30 shops	£34,200	111
Confectionery (Sweets and Chocs.), 30%.	256	£20 (£15 to £40) 40 shops	£5,126	500
Fruit and Vegetables, 25%.	240	£40 (£25 to £100) 14 shops	£9,600	250
Meat, 20%.	210	£100 (£70 to £250) 20 shops	£21,000	100
Tobacco and Accessories, 20%.	192	£30 (£25 to £85) 18 shops	£5,760	333
Boots and Accessories, 25%.	136	£90 (£60 to £250) 14 shops	£12,240	111
Millinery (inexpensive), 25%.	80	£80 (£60 to £300) 14 shops	£8,000	100
Fish, 25%.	60	£70 (£50 to £150) 8 shops	£4,200	143
Furniture and Furnishings, 33%.	40	£150 (£100 to £1,000) 5 shops	£6,000	67

wage) and that margin of gross profit and rate of turnover must be to some extent a function of this condition.

Relation of Expenses to Turnover.—Within certain limits, and under normal conditions, the retailer's expenses do not increase *pro rata* with turnover or sales. This fact has, or should have, a very important influence on the margin of gross profit, for it renders possible the making of large net profits by selling at reduced prices, assuming, as we usually can, that there is always a measure of unsatisfied demand for most commodities. Even if there is not, price reduction on this principle attracts customers from competing businesses, and tends to eliminate businesses which are run extravagantly.

An interesting example of the relation of expenses to turnover is afforded by the following figures referring to the confectionery trade.

TABLE V

	Average Retail Business.	Large Retail Business.	Average Wholesale Business.
Annual Turnover	£1,300	£26,000	£32,000
Average Margin of Gross Profit	30%	12%	10%
Gross Profit	£390	£3,120	£3,200
Expenses	£160	£1,710	£1,800
Expenses per cent. Turnover	12·3%	6·6%	5·6%
Net Profit	£230	£1,410	£1,400
Net Profit per cent. Turnover	17·7%	5·4%	4·4%

But the principle of large turnover and small margins only holds within limits. As businesses become very large with heavy overhead expenses, the expense margin per cent. turnover tends to increase. This is clearly shown by the figures of profits and expenses to follow. But this does not lessen the importance of the principle. It merely indicates that the study of expenses per cent. turnover in the dynamic sense is one of extreme importance.

Retail Net Profits and Expenses

We now come to the more lively question as to what the retailer actually makes. In approaching this subject it is essential to realise that variation amongst businesses is enormous. How, for example, are we to give a true impression of the profits earned in a system which contains at one extreme the tiny house-shop of the slums, taking, perhaps, only £150 per annum, and at the other extreme the huge joint-stock departmental store with a corresponding turnover of £5,000,000 to £10,000,000? Some system of grouping is obviously necessary, and the following has been found to be convenient for purposes of a broad consideration of the subject:—(1) ordinary shops doing a very good trade in central positions; (2) ordinary shops doing a smaller trade in quieter positions; (3) " house shops " in poor districts, and (4) large organisations, namely, " chain shops," departmental stores and Co-operative Societies. It should be noted that (2) and (3) are more numerous than (1) and (4).

In addition to grouping, there is the question of samples on which to base averages. The information must be truthful and adequate in quantity, and must also be of the right character. These conditions are not easy to satisfy, either in an official or a private inquiry. The procedure followed for securing the information in this paper was private in character and consisted

(1) in visiting different classes of shops in different towns and obtaining by various methods information as to turnover, margins of profit, expenses, etc.; and (2) in visiting wholesalers, manufacturers, bank managers, etc. with a view to confirming or otherwise and supplementing the information obtained under (1). Altogether a total of approximately 300 shops were visited on several occasions in six of the smaller industrial and non-industrial towns, and a considerable and additional number of shops and firms were also called upon in London. The number of shops from which definite and reliable statistical information could be obtained was, of course, small, though larger than was expected. As regards turnover only, the number of shops supplying information on this point is given in Table IV, and as regards turnover, profits and expenses, the numbers of shops are recorded in Tables VI and VII and by the subsequent figures relating to extremely large and extremely small organisations.

From a statistical point of view the number of shops supplying definite figures is admittedly small. But it should be borne in mind that all shops supplied information to some extent, and this proved in many cases exceedingly useful and quite valid for purposes of generalisation.[1]

In Table VI it will be seen that ordinary shops doing a very good trade in central positions yield net profits ranging between £300 and £3,000, while the net profit per cent. turnover ranges between 5 and 16. In every case except one (confectionery) the expenses per cent. turnover are greater, usually very much greater, than the corresponding net profit percentage.

It is necessary, however, fully to realise that there is great variation in turnover and in profit between shops of similar physical capacity. The writer is familiar, for example, with a fish shop in a suburban residential district of London which yields a net profit of £700 per annum (cf. Table VI) after paying

[1] As an illustration of this, and of the kind of method sometimes necessary, the following investigational experience may be quoted. In studying the smaller shops of a West-country town, the writer found a useful ally in the person of a wholesale tobacconist and confectioner whose principal customers were the small shopkeepers of the neighbouring villages, most of whom had outstanding accounts. A round journey was made by motor-car with one of the wholesaler's travellers, and all of those small customers were called upon and, by a prearranged method, satisfactorily interrogated. Although no exact figures were obtained (partly for the reason that in most cases no reliable records existed), yet a large amount of dependable information was secured regarding the earnings and economic position of the small shopkeepers in this particular region. Even in the case of large businesses there are ways of arriving at an estimate of the profits by indirect means, though, of course, from every point of view, this is not as satisfactory as the voluntary disclosure of recorded figures.

Table VI

Representative Retailing Results of Ordinary Shops doing a Very Good Trade in Central Positions in Four of the Smaller Provincial Towns.

Trade and Number of Shops studied.	Annual Turn-over.	Aver. Margin of Gross Profit % Sales.	Gross Profit.	Ex-penses.	Ex-penses % Turn-over.	Net Profit.	Net Profit % Turn-over.
Fish (4) . .	£5,824	25%	£1,456	£990	17%	£466	8%
Meat (8) . .	£10,400	20%	£2,080	£1,560	15%	£520	5%
Fruit and Vege-tables (12) .	£5,240	25%	£1,310	£874	14%	£436	8%
Millinery (inexpen-sive) (4) . .	£7,800	25%	£1,950	£858	11%	£1,092	14%
Grocery and Pro-visions (12) .	£17,940	15%	£2,691	£1,615	9%	£1,076	6%
Confectionery (Sweets and Chocs.) (16) .	£1,560	30%	£468	£219	14%	£249	16%
Tobacco and Acces-sories (12) .	£5,200	20%	£1,040	£572	11%	£468	9%
Boots and Acces-sories (8) . .	£7,488	28%	£2,096	£1,123	15%	£973	13%
Furniture and Fur-nishings (3) .	£37,440	33%	£12,480	£8,736	23%	£3,744	10%

N.B.—Net Profits include earnings of personal management.

Table VII

Smaller Shops doing a Quiet Trade.

Trade and Number of Shops studied.	Annual Turn-over.	Aver. Margin of Gross Profit % Sales.	Gross Profit.	Ex-penses.	Ex-penses % Turn-over.	Net Profit.	Net Profit % Turn-over.
Meat (6) . .	£2,800	22%	£616	£291	10%	£325	12%
Grocery (10) .	£3,500	16%	£560	£280	8%	£280	8%
Fruit and Vege-tables (8) . .	£2,500	25%	£625	£250	10%	£375	15%
Boots and Acces-sories (6) . .	£3,750	27%	£1,013	£323	9%	£690	18%

N.B.—Net Profits include earnings of personal management.

for the salary of a manager, and another in a "working class" district yielding a similar income. There is nothing very remark able about these establishments beyond the fact that they do a

big trade—the result of position (in relation to population) and management.

Table VII referring to smaller shops doing a quieter trade shows net profits ranging between £280 and £690, with the net profit per cent. turnover varying from 8 to 18. In these shops a large proportion of the work is done by the proprietor himself.

The next set of figures (Table VIII) relate to shops much smaller than those referred to above and situated in the poorest districts of small industrial and non-industrial towns.

TABLE VIII

"House-Shops," etc. in the Poorest Districts.

	Sample A.	Sample B.	Sample C.
Annual Turnover	£1,300	£800	£156
Average Margin of Gross Profit	25%	20%	20%
Gross Profit	£325	£160	£31
Expenses	£42	£35	£23
Expenses % Turnover	3·3%	4·4%	14·8%
Net Profit	£283	£125	£8
Net Profit % Turnover	22%	15·6%	5·2%

Nearly 20 per cent. of the shops in a small industrial town investigated and over 5 per cent. of the shops in a country town are of this type. They are essentially semi-domestic economies, usually run by the wife, the husband working out or drawing unemployment benefit.

We next come to a different side of retailing, namely, the large organisations which fall into three groups: the Departmental Stores, Multiple or "chain" shops, and Co-operative Societies.

The following figures represent average cost percentages on total sales for London, Suburban and Provincial Departmental Stores, as supplied by the Incorporated Association of Retail Distributors.

Half-year ending Feb. 1.	Total Sales.	Salaries, Wages and Bonuses.	Advert. and Printing.	Rent, Rates and Taxes.	Trans-port and Postage.	Deprec., Repairs, etc.	Total Ex-penses.
		%	%	%	%	%	
1914	100	9·5	1·36	2·06	1·6	0·89	18·67
1922	249·3	9·72	3·16	1·43	1·73	0·94	19·31

The average working margin of gross profit for Departmental Stores is 25 per cent.

Now, to take a concrete case, one of the largest and highest

class Departmental Stores in London had an annual turnover of £6,141,995 in 1925. Assuming the total expenses to have been 20 per cent., the net profit would have been £307,100.

The turnover in 1924 of a high-class but very much smaller establishment in a West-country town selling mainly women's clothes was £170,000. Again taking a 5 per cent. profit basis, the actual net profit would have been £8,500. As a matter of fact the gross margin on women's clothes is considerably above 25 per cent., therefore it is probable that £8,500 net profit is an under-estimation.

It will be of interest to observe here that in most of the large drapery establishments the most profitable department is millinery. The rate of stock turnover in inexpensive millinery is often remarkable, being sometimes as high as 65. In one small industrial town there is a millinery department which sells 800 hats per week at 5*s.* per hat and makes a net profit of over £1,000 per annum; but this, of course, is rather exceptional.

The next group to be considered is that of Multiple or "chain" shops. The following figures will be of interest.

Average Results of two Multiple Shop Companies.

Trade.	Number of Branches.	Averag Turnover per Branch per annum.	Average Margin of Gross Profit.	Total net Profit per annum.	Total net Profit % Total Turnover.
Cheap Grocery and Provisions .	750	£15,600	23%	£585,000	
Cheap Meat (private company) . .	65	£11,000	20%	£28,600	4%.

In the case of a popular chain of "bazaar" shops selling a great variety of articles, a single branch in a busy town of 60,000 inhabitants, and having a wide selling radius, may take £2,000 per week or £104,000 per annum, and, working on a 33 per cent. basis, yield a net profit of £10,000 per annum. This would be an exceptionally busy branch; many would not yield a quarter of this income. But the case is interesting in a general survey of retail profits. It is hardly necessary to point out that the profits derived from departmental and multiple shop trading have normally to be divided amongst a large number of shareholders.

We now turn to the last group—the Co-operative Societies. Co-operative trading is subject to the same economic forces as so-called competitive trading, the only essential difference being

one of ownership.[1] The total sales of Co-operative Societies in England and Wales in 1923 was approximately £130,000,000 of which £16,938,227 was expended on wages and salaries. Co-operative Societies therefore handle about one-twelfth of the total retail trade of the country. In provincial towns with a purchasing public of 60,000 the net sales (or turnover) may amount to £500,000 per annum. This will include the turnover of one or more "branches." The margin of gross profit varies between 22 per cent. and 25 per cent., the expenses between 12 per cent. and 14 per cent., and the net profit or surplus (free of income tax) between 10 per cent. and 11 per cent., of which the major portion is distributed as dividends amongst the members at the rate of about 2*s*. in the £ purchase. The annual surplus in a medium-sized provincial town may easily be £50,000.

Discussion of Retail Profits and Expenses

The foregoing figures indicate that the most usual net profit in retailing is £300 to £500 per annum. This profit is made under highly competitive conditions and does not appear to be an excessive reward where the services rendered are efficient, necessary and honest. The reward of the average retailer is often compared with that of the average farmer. A farmer of 300 acres does well if he clears, on an average, £500 a year. It is often cited as being unfair that a tradesman can earn the same amount with much less capital, knowledge and risk. Such comparisons, however, are often too hastily drawn. Real sacrifices and real satisfactions need to be compared, and this cannot be done in terms of money. In many forms of retailing great effort and skill and long hours of work are necessitated. At the same time, it is a fact that as regards price policy, the retailer is in a more powerful position than the primary producer.

The difference as regards profit and turnover between shops of a similar capacity and kind is due to (*a*) management and (*b*) location. Either one or both may be the determining factor.

Profits are naturally much higher in large businesses because of the greater turnover. The margin of gross profit is frequently the same in both large and small, but the margin of net profit tends to decrease, and the margin of expenses to increase as businesses get larger.

Co-operative Stores and Departmental Stores are to some extent comparable. The margin of gross profit is much the same in both, but the margin of expenses is less in the case of

[1] It should be noted that these businesses involve the investment of the members' capital and are essentially "capitalistic."

the former because of lower overhead charges (absence of high rent, advertising, credit, delivery, exclusiveness, variety and—in some commodities—good quality).

Responsibilities of the Consumer

In discussing retailing, the distinction between the supply of goods and the supply of services is not always adequately emphasised. Retailing as a productive activity is essentially the supply of services. It would not be difficult to secure a 5 per cent. reduction in retail prices if the general public were willing to forego some of the services at present demanded or complacently accepted. Some of these have been mentioned above. A very important question is the number of shops. A reduction in service from this point of view is possible owing to the fact that many shops are redundant.[1] But curtailment would be accompanied by some loss in public convenience.

The main argument against the reduction of services—advertising, multiplicity of "lines," number of shops, etc.—is psychological. Is it not true that the desire to produce and earn is stimulated by the widespread display of attractive commodities? Does not this display tend, in the long run, to improve the standard of living?

But without any radical alteration in the present system the consumer could do much to render retailing more efficient. A general effort to avoid "rush hours" and so spread the work of retailing more evenly over the day and the week would have highly beneficial results. Reduction in the demand for credit and some increase in the size of purchases would be distinctly beneficial. A more rational attitude towards prices and price alterations is also needed. The lure of $11\frac{3}{4}d.$, the willingness to pay two different prices for exactly the same article, the unwillingness to respond to price reductions designed to produce a big turnover, are characteristic of large numbers of consumers, many of whom are insufficiently informed as to the true relation between price and value.

One-quarter of the price which the consumer pays goes to the retailer. It seems a large slice, but under existing circumstances appears to be necessary.

W. R. Dunlop

(As in the case of a previous paper (Economic Journal, September 1925), the writer is indebted to Mr. F. W. Lawe, M.A. (Cantab.) for valuable criticisms and suggestions.)

[1] Some statistics collected by the writer on this point will shortly be appearing in *The Economist*.

EMPIRE FREE TRADE[1]

WHAT is to be said for the ideal of converting the British Empire into a single fiscal unit with a tariff against foreign imports, complete Free Trade within its borders? And is there any prospect that such a plan might in the measurable future become a practical possibility? At first sight, the ideal, while certainly difficult of attainment, would seem to be worth pursuing, for it has elements which may well appeal to even an ardent free trader. It would create a vast free-trade area embracing a quarter of the world's population and one-fifth of its territory—an area four times as large as either Europe or the United States. In these days of excessive economic nationalism, Europe's network of tariffs is properly regarded as one major cause of her distress; conversely, internal freedom of commerce is a fundamental factor in the relative prosperity of the United States; and from this contrast alone the notion of the British Empire as a commercial unit is an alluring one.

Difficulties at once suggest themselves. The plan involves the sweeping away of tariff walls within the Empire, and (except in the case of Canada) it is obvious that this partial demolition of protection must expose manufacturers in the Overseas Empire to competition from the quarter against which their protective tariffs have hitherto been chiefly directed, viz., the Mother Country. The strength of protectionist sentiment in the overseas Empire clearly renders such a development improbable. On the other hand, the plan requires that Britain herself should impose a tariff on imports from beyond the Empire; of necessity this must fall upon foodstuffs and agricultural raw materials; and it is needless to remark upon the political obstacles to this. Yet the prospects of success are not so remote as to deprive the subject of all interest. In the Dominions that have had most experience of high protective tariffs there is evidence of a reaction; and this is notably the case where farmers have become politically active. In Canada, for instance, the immediate post-war period saw a widespread demand for complete Free Trade between Canada and Great Britain within five years, and recent reports

[1] Extracted, largely, from a thesis, "Preferential Tariffs in the British Empire," approved by the University of London for the degree of Ph.D.

from Washington have again turned attention to this promising form of fiscal retaliation. In Australia, too, a recent writer on tariffs finds ample proof of a reaction against Protection, and believes that a pleasant surprise is in store for the government courageous enough to reduce tariffs.[1] Britain's adherence to Free Trade is still firm, but withal it has in recent years visibly weakened at several points; and a turn of the wheel of political fortune may even in this generation show that her traditional fiscal policy has a precarious hold on life. With a Labour Government somewhat vaguely committed to the bulk purchase of imported foodstuffs (often rendered to electors as "purchase *from the Dominions*"), promising stability of agricultural prices by control of imports, and led by men who are often eager to outbid their opponents in the fervour of their imperialism, it is evident that the principles of Protection may gain substantial victory while its historic champions in British politics rest on the Opposition benches. Thus Protection may triumph in Britain; the Dominions may move towards Free Trade as sound economic doctrines inform their legislators, or at any rate as farmers gain political power; and, it is suggested, the cumulative effect of economic interest and imperialist sentiment may lead to inter-imperial Free Trade. Our history already provides an illustration of the dramatic suddenness with which fiscal policy may be reversed by an almost fortuitous coincidence of economic, political, and personal factors. There is at least a *primâ facie* case to consider. We turn, then, to inquire into the probable effects on Great Britain and the overseas Empire respectively of a scheme of Imperial Free Trade.

Great Britain, as a manufacturing and exporting country, would in some directions certainly profit by Imperial Free Trade. Her producers already enjoy a limited tariff preference over foreign competitors in some parts of the Empire. But the willingness of the self-governing Dominions to confer this boon upon the Mother Country has been accompanied by reluctance to grant equality of opportunity with their local manufacturers. Imperial Free Trade would confer this equality, would increase the British preferential advantage over foreign competitors, and would for the first time establish preference in hitherto open-door colonial areas. Against these considerations, however, must be set certain losses to Great Britain. At present some sixty per cent. of her imports are drawn from foreign sources, and a differential tax on these to benefit Empire producers would mean a heavy sacrifice.

[1] F. C. Benham, *The Prosperity of Australia*, p. 229.

Falling largely upon foodstuffs and raw materials, such a tax must raise production costs and tend to embarrass exports, more than half of which now go to non-British markets. Moreover, the anti-foreign tax would divert supplies, at a lower price, to competitors of the British manufacturer. And the differential treatment accorded by Great Britain to imports would be likely to lead to retaliation and the partial loss of most-favoured-nation treatment.

So far as Great Britain is concerned, then, the economic consequences of Imperial Free Trade, combined with a tariff on foreign imports, would be by no means wholly favourable. Whether on a balance the gain would outweigh the loss cannot be judged in advance. To take an illustration from Pigou, there would be a net gain to Britain if she were granted a substantial preference in, or immunity from, protective duties, in imperial markets in return for her imposing a tax of a farthing per ton on ostrich feathers.[1] The answer, that is, must depend upon the detailed character of the bargain between Britain and the overseas Empire. But there is no reason to doubt that a reciprocal arrangement could be made which would materially profit Britain.

The issue may next be examined from the viewpoint of the overseas Empire. This separate approach is not, however, to suggest that the factors already considered would not react also upon the colonies and Dominions. Great Britain is their principal market, and then, as now, any change in her economic condition would be reflected in the lands which rely so largely upon her purchasing-power. Likewise the diverting of foreign supplies to neutral markets would directly affect producers in the Empire. And the enhanced prices secured in Britain would be accompanied, as the war-period well revealed, by higher prices to colonial consumers. Subject to these important qualifications, it can safely be said that the substitution of Imperial Free Trade for the present order would represent for the people of the British dominions a clear advantage.

What are now small units, vainly striving after self-sufficiency, and fostering industries under hothouse conditions, would become parts of a great Free Trade area. To consumers, the free flow of mainly British manufactured goods would be a clear gain. Their producers would reap a profit from the differential British tariff against foreign competitors. It is true that with Imperial Free Trade the Dominions would tend to specialise on the production of foodstuffs and raw materials and to depend, to an

[1] "Protective and Preferential Import Duties," p. 85.

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even greater extent than now, upon imported manufactures; though the development of local manufacture would be by no means so impossible as is commonly pictured. The wide extension of British imperial preference, too, would attract to British territory (notably to Canada) some manufacturing processes for the purpose of qualifying for tariff rebates. Yet even if it be conceded that the industrialisation of these countries would be retarded by Imperial Free Trade, the assertion that this would mean an inferior status and a "blighted destiny" is not one that is capable of rational proof.

A more substantial objection is that the formation of an imperial customs union would impair the fiscal and political autonomy of the constituent parts of the Empire. There is no doubt that in the interpretation of some advocates of a British Zollverein or of preferential tariffs this fate would be inevitable; and indeed for such persons the destruction of local autonomy and the more efficient organisation of Empire on a more or less military basis are the very objects sought. On the other hand an imperial customs union, voluntarily entered upon and terminable at will, is an arrangement different in degree but not in kind from a trade convention between sovereign states. In either case the parties' immediate freedom is curtailed for a presumed greater advantage.

It is necessary in this connection to notice the belief, inherent in almost every popular defence of protective tariffs, that complete freedom of trade must lead to an equalisation of wages or at any rate of standards of life throughout the Free Trade area. This is an issue of some theoretical and much practical interest in the British Empire; and it is a problem on which economic theory can throw light. Is it not obvious, to take a specific case, that the exclusion of Hindu labourers from White Australia, because of their low standard of life, is a futile proceeding if the products of this cheap labour are to be freely admitted to compete with the products of Australian workmen? "It seems as plain as a pikestaff to the average person," writes Professor Taussig, "—to the average employer no less than to the average workman—that the country in which money wages are low can undersell the country paying high money wages; and that if the two compete without restriction, wages must become the same in both." And yet, Taussig further observes, there is no such tendency to equalisation; the two countries may trade, to their mutual advantage, with the permanent maintenance of the divergences in wages; and likewise, differences in commodity-incomes or standards of

life may persist under complete freedom of trade. These theoretical conclusions are verified by actual experience, and indeed the first example cited by Taussig is directly relevant to the problem of British Imperial Free Trade: between Great Britain and India, for several generations, on a great scale, with rapid and cheap transportation, there was complete Free Trade, and yet striking differences persisted in real and money wages.[1]

The reasoning in the last paragraph, it is vital to remark, rests upon the assumption that the people with an inferior standard remain in their own country. If Free Trade were accompanied by free movement of persons, the tendency towards a common standard would be undeniable. This assumed immobility is of the highest practical importance in the present context. It is not sufficient either to retort that complete mobility (with or without freedom of trade) would equalise economic standards, or to deny that discussion of British Imperial Free Trade touches the difficult problem of human migration. The two issues are in fact intimately connected. The fiscal plan under review requires that India should confer preference upon British imports—upon imports, that is, from countries which either exclude her people or subject them to severe disabilities. It is hardly conceivable that these British communities would consider the relaxation of their Asiatic-exclusion laws: indeed there is probably no exaggeration in the statement by the Prime Minister of the most intensely British dominion that the issue is one on which his people would be prepared to fight against the British flag.[2] Nor is it in the least degree likely that, while the ban remains, Indian opinion would tolerate preference. A recent pronouncement in point occurs in the report of the Indian Fiscal Commission (1921–22). The majority advised against any general system of imperial preference, but suggested that at some later date the Tariff Board and the Indian Legislative Assembly might grant certain limited preferences; with regard to these, the commission recommended that any preferences to the United Kingdom be granted as a free gift, while in the case of other parts of the Empire preference should be granted only by agreements mutually advantageous. That would seem a sufficiently cautious attitude, especially with regard to "other parts." Yet the recommendation drew a protest from a more strongly Indian minority: "We cannot agree to any trade agreements being entered into with any dominion

[1] "International Trade," pp. 38, 39, 154.

[2] Sir Joseph Ward, New Zealand Prime Minister at Melbourne, 5th February, 1907—cited by Jebb, "The Imperial Conference," Vol. II, p. 42.

which discriminates against the people of this country." [1] Apart from this aspect, Indian opposition to imperial preference is virtually unanimous. And if India be excluded, the impressive calculations of the vast resources awaiting the British imperial Zollverein must be revised out of all recognition.

However, ignoring again the practical difficulties, what is to be said of the scheme from the viewpoint of the non-British world? It is by this inquiry that we are led to the most valid objections to the ideal of inter-Imperial Free Trade. For in common with all plans for preference to Empire products—in customs tariffs, government contracts, private purchases—this at once draws its main strength from, and encourages, the belief that the British Empire should seek to attain economic self-sufficiency; commercial contact between its citizens and foreigners should be reduced to a minimum; the undeveloped resources of the Empire should to a great degree be monopolised for British interests. This ideal of imperial self-sufficiency makes a strong appeal in these days when fears and passions engendered by the War have a far greater influence than we ever imagine. It is easy to show that such an ideal is physically impossible of realisation.[2] But it is more important to insist that, even to the extent that it can be achieved, it is to be condemned. The interests of world peace demand that we should look in the direction opposite to that represented by the economic self-sufficiency of any national or imperial unit. Between the ideal underlying the League of Nations and that which prompts us to strive towards an economically self-contained Empire, there is a fundamental conflict. Incidentally, it is worth observing that, even from the viewpoint of national security in wartime, it is futile to seek imperial self-sufficiency. Current arguments based upon the fear of isolation, to the extent that they are valid establish the case for national self-sufficiency; they are not to be reconciled with Free Trade within the Empire, nor with any limited scheme of preference calculated to increase Britain's dependence upon distant sources of supply. But our main point here is that the ideal of imperial self-sufficiency must make for international ill-will, and for this reason we may look askance on schemes which give expression to such an ideal.

Having conceded so much, however, we must remind ourselves that in some aspects British Imperial Free Trade would be no

[1] Cmd. 1764, p. 198.

[2] *e.g.* Final reports of Dominions Royal Commission (Cd. 8462), p. 72, and of Balfour of Burleigh Committee (Cd. 9035), p. 27, listing minerals, etc., non-existent in the British Empire.

more objectionable than the imperfect conditions which already exist. To-day, foreign commerce is confronted by differential customs-tariffs in all of the British Dominions, in more than half of the colonies, and to a slight extent in India and Great Britain. On the whole, this discrimination within the Empire has not been regarded by foreign states as a proper subject of complaint.[1] The adoption of complete Free Trade within the British Empire, accompanied by a tariff against non-British imports, would bring our Empire into line with the fiscal policy adopted by other colonising Powers under the title of "tariff-assimilation." Altogether, it may well be held that such a plan would not sensibly increase the sources of friction so far as foreign countries are concerned.

The conclusion suggested up to this point is that Imperial Free Trade promises to confer economic advantages upon the Overseas Empire, unalloyed by any serious economic or political injury; that it would probably also, on a balance, benefit Great Britain; that it need not deserve condemnation from the view-point of the world at large; and that altogether it is, while difficult of attainment, an attractive proposition.

This conclusion, it may seem incongruous to observe, is born of a desire to see Free Trade extended as widely and as speedily as possible. Perhaps to an undue extent it is coloured by the writer's residence until the other day in a tariff-protected Dominion which seems to have little chance of escape from its shackles except through Imperial Free Trade. But in any case, our experience of tariff preferences within the Empire suggests one corollary to Imperial Free Trade that is of the highest practical importance: no such scheme should be so rigid as to exclude the possibility of reciprocal or other concessions to foreign countries. Otherwise, there would be a real danger lest an immediate approach to freer trade would be bought at the expense, not merely of certain new tariffs, but of the perpetuation of tariff-walls between the British and the non-British world. The tariffs contemplated would, in effect, be preferential tariffs of the kind already existing, subject however to a preference of 100 per cent. The danger is that the existence of this preference will be used to bolster up the tariff in which it is embodied. Such a use of the Canadian preference on British goods was made by Sir Wilfred Laurier's political opponents in 1911, leading to the defeat of the Reciprocity agreement with

[1] The German-Canadian tariff war, 1903-9, is an important exception, and United States writers have lately been disposed to question the propriety of British imperial preference.

the United States. Similarly during the present year the Opposition in South Africa sought, though without success, to defeat the trade treaty with Germany on the ground that it threatened to impair British imperial preference. And in 1924 a member of the British House of Commons gave vigorous expression to a widely-accepted view when he described the repeal of the McKenna duties as "a slap in the face (for the Dominions) because those duties contained a preference."[1] It is not suggested that the existence of a preference is in fact the effective cause of opposition to the repeal of tariff duties, but it is clearly capable of being used by interested parties as a cloak for less worthy motives for opposing Free Trade. As regards Imperial Free Trade, one cannot of course say in advance that a tariff against foreign imports will not be likewise entrenched behind imperialist sentiment; but the danger is one of which due account must be taken.

So far, we have considered as a unity something which may properly be resolved into a number of distinct parts. Imperial Free Trade here means (i) that the British Dominions should remove tariffs now imposed upon British goods, but should retain such tariffs on foreign imports; (ii) that Great Britain should impose a tariff on foreign imports, especially upon those which compete with Empire products, and should maintain her present generous fiscal policy towards Empire products; and (iii) that India and the rest of the non-self-governing Empire should similarly adopt this twofold policy. Now there is little reason why this composite policy should be treated as a whole, why its good elements should not be severed from the bad. It is indeed highly improbable that any comprehensive scheme of fiscal reform embracing the whole Empire will ever be adopted—that would, for one thing, be too much at variance with our vaunted national incapacity for anything but piecemeal progress. And, as we have constantly been obliged to note, the practical difficulties in the way are well-nigh insuperable. As much as may be said, then, is that the movement for Imperial Free Trade offers some promise of progress towards freer commercial intercourse; but that it is also pregnant with dangerous elements, particularly in so far as it is inspired by the pernicious ideal of imperial economic self-sufficiency. Yet on a balance it represents an improvement upon the existing fiscal order in the British Empire.

R. M. CAMPBELL.

[1] Parliamentary Debates, 17th June, 1924, p. 2013 (Mr. Greene).

GOLD POINTS AND CENTRAL BANKS

ONE of the essentials of the system of gold standard is the existence of approximate limits to the fluctuation of the exchanges, upon which the banking and business community may safely depend. Importers in this country should know that, when the dollar exchange has reached gold export point, there is no need for them to cover their dollar requirements in a haste, for there is no risk of a further appreciation. Holders of dollars, in turn, should know that they cannot expect any further appreciation. The Money Market should know when the exchanges are approaching the rates beyond which they are likely to affect market resources by means of bringing about gold movements. One of the conditions of the efficiency of the system is, therefore, that gold points should be ascertainable with a high degree of accuracy. Although they are subject to inevitable changes, it is desirable that these should be comparatively infrequent, and that they should be ascertained as soon as they occur. It is desirable from a practical business point of view, as well as for the purposes of monetary policy, that unknown factors should be eliminated, the elements of uncertainty should be reduced to a minimum; and it is the duty of central banks to pursue that end.

The situation in this respect is, since the restoration of the gold standard, far from ideal. Changes have been frequent, and a great deal of uncertainty prevails—even in official quarters—as to some of the factors affecting gold points. It is characteristic that in July 1929 the Bank of France considered it advisable to have two small test shipments arranged from London to Paris, so as to ascertain the gold import point.

In the March 1927, September 1927, and December 1928 issues of this JOURNAL we indicated some of the circumstances responsible for the instability and uncertainty of gold points since the war. Several of these circumstances, such as the frequent changes in the freight rates, insurance rates, and the wide fluctuations in the rates of interest, are the consequence of the general unsettled post-war conditions for which nobody in particular can be blamed. Central banks are largely powerless against these elements of uncertainty. This is, however, no reason why they should add to them by means of the policy and

tactics they adopt from time to time in matters of gold shipments. Their excuse for interference with gold points—if they were to deem it necessary to give any explanation at all—would be that conditions are abnormal and require abnormal measures. So long as these abnormal measures aim at the elimination of special transactions they can only be approved. If, however, they are directed against normal commercial gold shipments and affect gold points the central banks responsible for them lay themselves open to adverse criticism.

One of the means by which central banks interfere with gold points is the policy of arranging gold transactions between each other, instead of allowing free course to gold arbitrage and confining themselves to normal devices of monetary policy affecting exchanges so as to initiate or check gold shipments. In certain cases the exceptional measures of interference are explained by the necessity for some central banks to increase immediately their gold stocks, so as to be able to maintain the gold standard. On such occasions it is regarded as impossible or inexpedient to leave it to the automatic working of the gold standard to fulfil this task. In other instances the policy is inspired by a desire of saving transport costs. This was the case of the triangular gold transactions arranged in May and June 1929, between the Reichsbank, the Federal Reserve Bank of New York, and the Bank of France, and, to a small extent, between the two former and the National Bank of Belgium. In order to support the reichsmark exchange, the Reichsbank had to sell gold in New York. Instead of shipping gold from Germany, it took over part of the gold earmarked on account of the Bank of France in New York, sold it to the Federal Reserve Bank, and replaced it by means of dispatching gold from its Cologne branch to Paris, which is less expensive than shipments from Bremen or Hamburg to New York. The Bank of France also benefited by the arrangement, as it repatriated free of cost part of its gold held in New York.

The comparative frequency of official transactions has led to the conclusion that there is a general tendency towards replacing normal commercial gold shipments by transactions arranged between central banks. In the absence of any authoritative pronouncement on the part of the leading central banks as to their policy in this respect, it is difficult to ascertain whether this is included in the programme of the co-operation of central banks. It is generally believed, however, that one of the objects of the proposed Bank for International Settlements is to reduce,

if not eliminate, the volume of arbitrage or exchange transactions by such means.

Doubtless, central banks are in a position to compete successfully with private arbitrage even if no change is made in their favour in the existing monetary legislations, and even if they adopt an attitude of strict neutrality towards private arbitrage—which is by no means always the case. As their gold-holding constitutes in any case an idle reserve which earns no interest, whether in their vaults or on its way between two centres, there is no need for them to allow anything for loss of interest when calculating the cost of shipment. For this reason they are in a position to undertake gold shipments profitably before any bank or other arbitrageur can see its way to undertake them. The gold points for central banks are, therefore, considerably different from those for other banks. There are, in fact, three different sets of gold points, according to whether the shipment is undertaken by arbitrageurs paying interest, commission and brokerage, banks or brokers paying interest but no commission or brokerage, working on joint account with a bank in the other centre concerned in the transaction, and central banks paying neither interest nor brokerage. The difference between these three kinds of gold points of the principal exchanges (on the basis of a rate of interest of 5 per cent.) is shown by the following table:

	Normal Gold Points.	Central Banks' Gold Points.	Extreme ' Gold Points.
Dollar's gold import point . .	4·88$\frac{27}{32}$	4·88$\frac{11}{64}$	4·89$\frac{9}{64}$
Dollar's gold export point . .	4·85$\frac{9}{64}$	4·85$\frac{13}{64}$	4·84$\frac{27}{32}$
Reichsmark's gold import point .	20·50$\frac{1}{4}$	20·49$\frac{3}{8}$	20·51$\frac{1}{2}$
Reichsmark's gold export point .	20·35$\frac{3}{4}$	20·36$\frac{3}{8}$	20·33$\frac{3}{8}$
Guilder's gold import point . .	12·14$\frac{1}{8}$	12·13$\frac{3}{4}$	12·14$\frac{7}{8}$
Guilder's gold export point . .	12·04$\frac{1}{2}$	12·05$\frac{1}{8}$	12·03$\frac{3}{4}$
Canadian dollar's gold import point	4·88$\frac{3}{8}$	4·87$\frac{31}{32}$	4·88$\frac{43}{64}$
Canadian dollar's gold export point .	4·84$\frac{21}{32}$	4·85$\frac{7}{16}$	4·84$\frac{23}{64}$
French franc's gold import point .	124·55$\frac{1}{2}$	124·52$\frac{1}{4}$	124·63$\frac{1}{4}$
French franc's gold export point .	123·93	123·96$\frac{1}{8}$	123·85$\frac{1}{4}$

In the case of the reichsmark, the gold import point for " outsiders " is calculated on the assumption that, if the Reichsbank wishes to discourage an influx it insists on delivery in Berlin. In practice this has not occurred yet after the war. The " extreme gold points " are calculated on the assumption that those working under least favourable conditions have to bear additional expenses of about $\frac{1}{16}$ per cent. in the shape of brokerage, commissions and higher rates of interest. Nothing is allowed for possible additional expenses caused by the occasional tactics of central banks desirous

of discouraging gold movements. For further details as to the calculation of above gold points we must refer the reader to the author's book on *International Gold Movements* (Macmillan & Co., 1929), Appendix I.

Admittedly, on certain occasions commercial banks also undertake gold shipments without allowing for loss of interest, for which case the gold points are identical with those of the central banks. As we stated in our article appearing in the December 1928 issue of the ECONOMIC JOURNAL, if a commercial bank is particularly desirous to carry out a gold shipment, it includes the gold for book-keeping purposes in its idle cash reserves and does not allow for loss of interest. Experience since then has shown, however, that such cases are exceptional, and, in the predominant majority of cases, they allow for loss of interest, though the percentage to be allowed for is a matter of opinion in the case of commercial banks, and varies fairly widely. For other arbitrageurs, possessing no large reserves, and having to finance the shipments on the basis of the current market rates, it is, naturally, these rates which determine the amount to be allowed for loss of interest. Thus, the rule is that central banks are at an advantage as compared with other arbitrageurs, and the margin between their gold points is narrower than the margin between gold points for other banks.

This, in itself, would not be particularly disadvantageous from the point of view of the stability of gold points if it were understood that central banks are always supposed to undertake gold shipments whenever exchanges move beyond their special gold points. This, however, is by no means the case. The primary object of gold transactions between central banks is not profit, and they are not likely to undertake gold shipments merely for the sake of the margin of profit, unless there is also another motive which makes their intervention desirable. Consequently, when the exchanges reach their gold points as calculated for central banks, gold may or may not be shipped, according to the convenience of central banks. This state of affairs is bound to create a feeling of uncertainty in the foreign exchange market, as nobody knows whether or not a further depreciation or appreciation of the exchanges would be checked by gold transactions. While the gold points for private arbitrage provide an approximate limit to exchange movements, the gold points for central banks are merely optional limits which may or may not operate in practice.

As gold points for central banks cannot be relied upon as limits of exchange movements, the influx or efflux of gold through

direct transactions between central banks fails to produce the same effect as on the Foreign Exchange Market and the Money Market as gold movements of the same magnitude undertaken by private arbitrage. These latter usually result in a marked rise or fall, according to the case, in the rates of interest, and tend, therefore, to set the factors in motion which tend to correct the influences responsible for the weakness of the exchange of the exporting country. They also tend to provoke a reaction in the exchange rate itself. On the other hand, if gold transactions are undertaken by central banks this fact is likely to minimise their effect. Though the proceeds of the sale of gold tend to influence the exchange favourably, and the contraction of credit resources tend to create monetary stringency, these tendencies will not be accentuated by the psychological factor as in the case of arbitrage transactions. If a shipment is made by private arbitrageurs it is known that so long as the exchange remains at the rate prevailing at the moment of the transaction, several similar transactions will follow. If, on the other hand, a shipment is made by a central bank, it may or may not be followed by other shipments, according to the convenience of central banks. Possibly after an isolated shipment the exchange is allowed to appreciate or depreciate, as the case may be, until it has reached its natural gold point.

The traditional secretive policy of some central banks constitutes another disadvantage of gold movements undertaken by them. The origin and destination of gold movement by arbitrage proper is generally known with a fairly reliable accuracy. On the other hand, some time may elapse until the origin and destination of shipments by central banks can be traced from the returns of other central banks, which do not necessarily give reliable indication, as often transactions carried out during the period covered by the returns offset each other. The market is left in the dark, which is anything but desirable.

Direct operations by central banks have not so far assumed sufficiently large proportions to constitute a serious interference with gold points, as far as the principal gold exchanges are concerned. On the other hand, the tactics adopted by central banks often interfere with the rates at which gold shipments can in theory profitably be undertaken by private arbitrage, and still more often with the rates at which shipments are actually undertaken—which rates are, after all, the rates that really matter for practical purpose. Minor changes in the actual buying and selling price of gold, aiming at encouraging or discouraging gold move-

ments by private arbitrage, influence the rate at which it is, in theory, profitable to make shipments. Whether gold is actually shipped at that rate often depends upon the attitude of the central banks towards arbitrageurs. Very often unofficial pressure is borne upon banks to abstain from gold shipments even though they appear profitable. It is an open secret that in June of this year for several weeks the Reichsbank dissuaded the German banks from taking gold from London, although the exchange was well beyond gold export point. Similarly, the Federal Reserve Bank of New York is believed to have put pressure upon American banks to abstain from importing gold from London. As a result, both dollar and reichsmark moved considerably beyond their theoretical gold export points, which caused some uneasiness abroad as to the intentions of this country to carry out gold standard in letter and spirit, and is believed to have been the cause of the withdrawal of some foreign funds from London, accentuating thereby the adverse trend of sterling. Largely as a result of Press criticisms, the unofficial embargo on gold import from London was raised both in New York and Berlin before it could do much harm; but it was a good lesson to indicate the damaging effect of the interference of central banks with gold movements.

The attempts to discourage undesirable gold shipments, unless they amount to a virtual suspension of the gold standard—as in the case of Canada this year—very often fail to attain their end. Gold is shipped in any case as soon as the exchange reaches a point at which the margin of profits is sufficiently large to tempt certain arbitrageurs to disregard the wishes of the authorities. As a rule, central banks can only influence banks and firms desirous of maintaining good relations with them. Firms or individuals without any direct relations with the central bank may disregard the official attitude, and may insist on the letter of the monetary law compelling the central bank to buy and sell gold at a fixed price. These "outsiders" of the gold arbitrage usually work under less favourable conditions than banks, and have to pay brokerage and commission. The margin between the gold points for their purpose is rather wide, but the official interference with gold movements may itself stimulate tendencies causing exchange movements even beyond these gold points. Thus the possibility of any pressure on the part of the authorities merely increases the uncertainty as to the rate at which gold is likely to be shipped, without being able to prevent or check gold movements.

Moreover, most central banks do not confine their interference with gold points to mere "peaceful dissuasion." There are a great variety of weapons at their disposal enabling them to discourage gold shipments they consider undesirable. The mildest of them is to abstain from assisting in the packing of gold, in which case additional expense is incurred by the transport of bars or coins to suitable premises where they can be packed. The Federal Reserve Bank of New York, which usually delivers gold free on board if it approves the transaction, refuses to grant this voluntary facility to an unwanted gold shipment. The regulations as to assay are usually sufficiently elastic to allow a fair scope for central banks to raise difficulties should they wish to do so. Usually there is nothing to prevent them from insisting on the assay of every bar—though they may bear the stamp of an approved central bank—or delaying the payment for part of the consignment. All these tactics, if applied, tend to change the gold points, while the mere possibility of their application tends to create considerable uncertainty as to the approximate figures of gold points.

The method by which the Caja de Conversion of Argentina aims at discouraging gold exports is particularly interesting, and provides a characteristic example. Although obliged to convert its notes into gold coins at the official rate, it has the option of choosing the coins it wishes to pay out. Apart from the well-known device of supplying worn coins, it is in a position to discourage an efflux by paying out an unwanted category of coins. Thus, if the dollar moves against the peso, a gold shipment to New York may be discouraged by paying out sovereigns or mixed coins instead of eagles. Over and above the minting cost, the possible loss of weight at melting has to be added to the cost of shipment, which circumstance affects the gold point considerably. The following figures show the difference between gold points for eagles and sovereigns for shipment from Buenos Aires to London and to New York:

SHIPMENT OF SOVEREIGNS TO LONDON

100,000 *sovereigns* @ 5·04 *pesos gold*	504,000 *pesos*		
Freight 10*s*. per £100	£500	0	0
Insurance 1*s*. 6*d*. per £100	75	0	0
Interest 5 per cent. 22 days	301	7	5
Incidental expenses	50	0	0
	£926	7	5
Net proceeds	£99,073	12	7

Gold point: 1 *peso* . . . 47·0868*d*.

Shipment of Eagles to London

100,000 *eagles* @ 10·364 *pesos gold*	1,036,400 *pesos*
Freight 10*s*. per £100	£1,027 10 0
Insurance 1*s*. 6*d*. per £100	154 12 6
Interest 5 per cent. 22 days	619 6 3
Incidental expenses	100 0 0
Allowance for loss of weight ½ per cent.	513 10 6
	£2,414 19 3
$1,000,000 @ 4·8665	£205,486 11 8
Net proceeds	£203,071 12 5
Gold point: 1 peso . . . 47·02*d*.	

Shipment of Eagles to New York

100,000 *eagles* @ 10·364 *pesos gold*	1,036,400 *pesos*
Freight ⅓ per cent.	$3,333·30
Insurance 1 per mill.	1,000·0
Interest 5 per cent. 18 days	2,465·70
Incidental expenses	500·0
	$7,299·0
Net proceeds	$992,701·0
Gold point: 1 peso . . . $0·9579.	

Shipment of Sovereigns to New York

100,000 *sovereigns* @ 5·04 *pesos gold*	504,000 *pesos*
Freight ⅓ per cent.	$1,622·17
Insurance 1 per mill.	486·65
Interest 5 per cent. 18 days	1,199·96
Incidental expenses	250·0
Allowance for loss of weight ¼ per cent.	1,216·62
	$4,775·40
100,000 sovereigns at mint parity	$486,650·0
Net proceeds	$481,874·60
Gold point: 1 peso . . . $0·9561.	

Thus, while it is profitable to ship sovereigns from Buenos Aires to London when the exchange declines to 47·08⅝, it is not until the rate reaches 47·02 that the shipment of eagles to London becomes profitable. On the other hand, the shipment of eagles to New York becomes profitable at a rate of 0·95¾, while it is impossible to undertake profitably the shipment of sovereigns to New York until the rate has declined below 0·95⅝.

The shipment of coins other than those of the countries of destination involves a risk even if the coins are brand-new, for the loss of weight at melting can not be foreseen. The percentage allowed for the risk varies according to the conservatism of the arbitrageur, and provides an additional element of uncertainty.

The monetary authorities of other countries have other special

devices for the discouragement of gold shipments. They also encourage from time to time gold shipments that suit their purpose, by an ingenious variety of means. Almost every central bank on a gold basis has practised at one time or other some kind of means to encourage or discourage gold shipments. As their application is not continuous, the Money Market and the business community never know when to expect interference. The extent to which the interference of central banks affects gold points is striking. Though the normal gold export point of the dollar exchange is just over 4·85, a direct arrangement between the central banks would make shipments possible on a profitable basis at 4·85$\frac{5}{8}$, and the applications of devices of discouragement of shipments would shift the gold point in practice to about 4·84$\frac{1}{2}$. The range within which the gold point may move is thus over one full point, which tends to reduce the benefits of a legally stabilised exchange from the point of view of practical business men. At the same time, the manipulation of gold points to suit the convenience of central banks reduces the automatic nature of the working of the gold standard, which is claimed by most of the adherents of the system as one of its principal advantages.

PAUL EINZIG

MR. KEYNES' VIEWS ON THE TRANSFER PROBLEM

I. A Criticism by M. Jacques Rueff

In the Economic Journal for March, 1929, there appeared an article by Mr. Keynes on "The German Transfer Problem." In this article Mr. Keynes answers those writers who believe that the transfer problem does not arise when budgetary problems have been solved, and that it may even be dangerous to provide machinery to maintain the equilibrium of the balance of payments of the debtor country.

This article, like all that Mr. Keynes writes, is argued with incomparable logic. The problem is clearly defined, the reasoning unfolds itself with such lucidity that the contrast between the two points of view is sharply distinguished, and discussion becomes particularly inviting. If any excuse is needed for having undertaken this discussion, it may be found in the very perfection of Mr. Keynes' dialectics.

In Mr. Keynes' criticism of the standpoint of the writers who deny the existence of a transfer problem there are two fundamental observations, differing greatly both in character and in their respective consequences.

In the first, Mr. Keynes shows that, in his view, the settlement of reparations due from Germany raises not only a budget problem, but also a transfer problem, because "the expenditure of the German people must be reduced, *not only* by the amount of the reparation taxes which they must pay out of their earnings, but also by a reduction in their gold-rate of earnings below what they would otherwise be. . . . The transfer problem consists in reducing the gold-rate of efficiency-earnings of the German factors of production sufficiently to enable them to increase their exports to an adequate aggregate total; the budgetary problem consists in extracting out of these reduced money-earnings a sufficient amount of reparation taxes" (p. 4).

On this point Mr. Keynes' assertion appears to be indisputable. But it is equally so when he says on page 5: "The reduction in real wages would be by no means so large as the reduction in money-wages, since the prices of home goods for home consumption might be expected to fall."

This seems to us an essential point. If it were possible to examine here the question from the point of view of economic theory, by inquiring how equilibrium is maintained or restored, provisionally ignoring the resistances which in practice paralyse the play of economic phenomena, it could be shown that exchange and price movements—in other words, the movements of gold prices—which tend to maintain the equilibrium of a balance of payments, or restore it when it has been accidentally disturbed, affect equally all internal prices.

This is evident when, during a régime of forced currency, a variation in gold prices is brought about by means of a variation in the rate of foreign currencies reckoned in the national currency. In the case of metallic circulation the proof is more complicated, and constitutes a special aspect of the theory of prices; but we are sure that Mr. Keynes knows the result and does not dispute it. Assuming then that, in the adjustment which restores equilibrium to the balance of payments all the prices vary in the same proportion as wages, real wages are not modified. Hence the purchasing power of the population remains unchanged, and the fall in gold prices which restored the equilibrium of the balance of accounts has imposed no new sacrifice on the population, and has not altered its position in any way. As, moreover, this movement of prices is entirely spontaneous, we consider that it can be altogether ignored. It was for this reason that we felt justified in asserting that there was no transfer problem.

On the contrary, the levy which is to produce the necessary funds for the purchase of the exchange to be remitted to the foreign creditor will cause no fall in prices, since the purchasing power of which the population has been deprived will be transferred to the sellers of foreign exchange and utilised by them. As a result of this levy, there will therefore be a real decrease in the resources of the population of the debtor State, and this decrease, measured in purchasing power, will be exactly equal to the increase in the resources of the population of the creditor State.

The foregoing conclusions can also be deduced from a principle which I have always found confirmed in the various individual cases I have had to study. I should be astonished if Mr. Keynes had not, like myself, had occasion to enunciate this conclusion and if he did not admit its general applicability. This principle, which might be called the principle of the conservation of purchasing power, simply states that never in the course of the various economic transformations that occur is purchasing power lost or created, but that it always remains constant. The result is

that in all cases one man's loss is another man's gain, as was very clearly shown by the levies made upon the holders of fixed income securities during the various inflation crises which followed the war. In the case before us the principle of the conservation of purchasing power makes it possible to assert that, whatever the appearances may be, the population of the debtor State would not suffer a loss of purchasing power greater than the amount of their debt—a conclusion to which the theory of exchanges and prices would lead.

For all these reasons I have ventured to assert that, at any rate as a matter of economic theory, there is no transfer problem, but only a budgetary problem. And I think that Mr. Keynes will also agree with me in this. But he will observe—and this is his second criticism—that the results mentioned above are true only in economic theory, when it is assumed that all phenomena have free play and are not subject to all the resistances and frictions which in reality paralyse their operation. "In the case of German reparations," he says, "we are trying to fix the volume of foreign remittances and compel the balance of trade to adjust itself thereto. Those who see no difficulty in this . . . are applying the theory of liquids to what is, if not a solid, at least a sticky mass with strong internal resistances" (p. 6).

Thus, Mr. Keynes does not deny the existence of the phenomena which tend to maintain economic equilibria, but he holds that these phenomena are unable to overcome the resistances which in practice oppose the adjustments they tend to bring about. In other words, when the equilibrium of a balance of accounts has been disturbed—as it is by the payment of a new debt of a political character—there will, it is true, be a tendency towards the restoration of this equilibrium; but to be effective this tendency will have to modify existing situations and, in particular, bring about profound changes in commercial currents. Mr. Keynes refuses to admit that the stuff of economics is sufficiently fluid to obey rapidly and without profound disturbances the influences of a non-economic origin which tend to shape it. He considers in particular that the balance of trade at any moment is largely dependent upon the economic structures of the various countries, and that it cannot adjust itself rapidly to the requirements of an equilibrium in the balance of payments when the conditions of this equilibrium are abruptly modified.

By means of the foregoing considerations, Mr. Keynes defines the problem with abundant clearness. He thinks that the writers

who deny the existence of a transfer problem are wrong in stating that the balance of payments of a country is always brought into equilibrium by the operation of the phenomena of exchange and prices, and that therefore, when the invisible factors of the balance of payments undergo an important change, the commercial balance spontaneously undergoes a change in the opposite direction.

If Mr. Keynes is right, there is a transfer problem, and it is necessary continually to limit actual transfers to the transfer possibilities of the moment; if, on the other hand, he is wrong, it is the previous transfers which determine the conditions of equilibrium of the balance of payments, and it would be absurd to attempt to make actual transfers dependent on the transfer possibilities which they themselves create.

To settle the question, it will be sufficient to interrogate the facts and to inquire whether, in previous cases in which the equilibrium of the balance of payments has been abruptly disturbed the commercial balance has obeyed the phenomena which tend to maintain the equilibrium of the balance of payments, or whether, on the contrary, the adjustment of the commercial balance has been rendered impossible by those resistances which Mr. Keynes alleges to exist.

Thus, past experience will tell us in each case the amount of truth contained in Mr. Keynes' assertions, who, as if to help us in examining his contention, has further defined its meaning as follows :—

"My own view is that at a given time the economic structure of a country in relation to the economic structure of its neighbours permits of a certain natural level of exports, and that arbitrarily to effect a material alteration of this level by deliberate devices is extremely difficult" (p. 6).

This judgment contains a two-fold assertion, firstly that for each country there is a "natural" level of exports, determined by the economic structure of the different countries concerned, and secondly that it is extremely difficult to effect an alteration of this level arbitrarily and deliberately.

I shall first endeavour to refute this second assertion, and will then go on to examine the first. In the course of this discussion I shall have to have recourse to arguments I have already used in a previous study,[1] with which I think Mr. Keynes is already acquainted. I have the less scruple in doing so as Mr. Keynes' article shows me that I did not sufficiently bring out the

[1] Une erreur économique : l'organisation des transferts (Doin, 1928).

lessons to be derived from this study as regards the sensitiveness of economic phenomena, and particularly as regards the adaptability of balances of payments to certain deliberately provoked situations.

In this work I examined, among other things, the phenomena which followed the most profound and abrupt disturbance ever suffered by a balance of payments—that which was produced by the decision suddenly taken by Great Britain and the United States at the beginning of 1919 to cease granting France the sterling and dollar credits which had previously enabled France's balance of payments to be kept in equilibrium. This decision removed from the credit side of this balance of accounts an item of approximately 20 milliards of francs. To use Mr. Keynes' own words, it was "arbitrary" and a "deliberate device."

If our author's contention was correct—in other words, if, as he says, a country's balance of payments is the result of the economic structure of the countries concerned—and if it were extremely difficult to effect a material alteration in the natural level of exports by a deliberate device, France's commercial balance should not have been modified. It should have remained, after the removal of the credit, materially what it had been before, since the economic structure of the countries concerned was not affected by the free decision of the British and American Governments. If this had been so, the deficit in France's balance of payments would have been approximately 20 milliards of francs per annum.

The facts show, however, that this was by no means the case. In 1919 the deficit in France's commercial balance was approximately 23 milliards of francs. In 1920 it was approximately the same. But in 1921 it had been reduced to approximately 2 milliards of francs, and remained more or less at that level during 1922 and 1923.

In other words, following upon the cessation of the credits which France received from her Allies, a change had taken place in her commercial balance very nearly equal to the amount of the credits withdrawn, this change making up for their disappearance and restoring an equilibrium whose disturbance had nevertheless been deliberate.

It should further be observed that if in 1919 equilibrium was re-established during a period of currency depreciation, this depreciation was not in any way an essential factor of the phenomena which brought about the re-establishment of equilibrium. The latter results from a reduction of internal prices

as compared with external prices estimated in the national currency, and this diminution may be caused not only by a rise in the rate of foreign exchange, but also, to a period of free circulation of gold, by a small fall in home prices. The above observation is developed in the work already referred to.

Mr. Keynes will no doubt think that the re-establishment of the equilibrium in the balance of payments in France between 1919 and 1921 constitutes a mere coincidence. The change in the commercial balance which seems to make up for the withdrawal of the political credits may, according to him, be only the transition from the "natural level" of the state of war to the "natural level" of the state of peace, and may have simply been caused by the changes in economic structure attending this transformation.

If this were so, it would still be somewhat surprising that the change in the commercial balance should coincide approximately with the amount of the credits withdrawn. But, further, the commercial balance should remain more or less constant after this movement, or rather it should only undergo changes provoked by modifications in the economic structure of the countries concerned.

The facts, however, were quite otherwise. France's commercial balance remained practically constant during 1921, 1922 and 1923 (deficit, in millions of francs, 2,295, 2,552 and 2,256). But during 1924 it underwent a further striking change, and showed no longer a deficit, but a surplus of 1,540 million francs.

Now everyone knows that the end of the year 1923 witnessed in France the beginning of the great period of the exportation of capital. This introduced a new debit item in the balance of payments. If therefore the commercial balance had remained unchanged, the balance of payments would have shown a deficit. To bring about equilibrium, a modification of the commercial balance was necessary. Now this modification displayed itself in the clearest possible manner, although never since 1875 had the Customs statistics revealed in France a surplus of exports over imports.[1] This surplus was maintained during the year 1925 (1,660 million francs). During 1926 it fell to 80 millions, and again rose in 1927 to 1875 million francs. But from 1928 onwards, *i.e.* from about a year and a half after the end of the great capital export crisis,[2] the deficit reappeared. It amounted

[1] Except, however, in 1905, when there was an exceptional surplus of 88 million francs.

[2] After the withdrawal of the political credits it also took about one and a half years for the commercial balance to adjust itself.

to 2,101 million francs, *i.e.* it returned to about the figure of the years 1921, 1922 and 1923, during which it was generally acknowledged that in France there was no movement for the export of capital.

Thus, during all this period France's commercial balance has always adjusted itself very definitely to the modifications in the financial factors of the balance of payments (first political credits and then investments abroad), although these modifications were extremely rapid and involved exceptionally large amounts, and although they had no relation to what Mr. Keynes calls the economic structure of the countries concerned.

The fact that the commercial balance adjusted itself to the quite exceptional volume of investments abroad during the great crisis of exportation of capital which occurred in France for psychological reasons definitely invalidates the opinion which Mr. Keynes expressed as follows – (p. 6 of his article) :—

"Historically the volume of foreign investment has tended, I think, to adjust itself, at least to a certain extent, to the balance of trade rather than the other way round, the former being the sensitive and the latter the insensitive factor." We have just shown that in France, after the war, the exact contrary proved to be true.

At all times, in fact, the commercial balance has shown a tendency to adjust itself to the necessities of the equilibrium of the balance of payments, whatever they might be and whatever their origin. Between 1870 and 1914, for instance, France's commercial balance only showed a surplus during the period 1872–1875, during which France was rapidly paying off the war debt imposed upon her by Germany; while during all the rest of this period the commercial balance showed a deficit of several hundred million francs per annum.[1]

[1] With the exception, however, of the year 1905, during which the commercial balance showed a surplus of 88 million francs. For the period 1867–1887 the figures are as follows :—

Year.	Commercial balance.	Year.	Commercial balance.
1867	−201	1877	− 243
1868	−514	1878	− 997
1869	− 79	1879	−1,364
1870	− 65	1880	−1,566
1871	−694	1881	−1,302
1872	+191	1882	−1,247
1873	+233	1883	−1,353
1874	+194	1884	−1,111
1875	+336	1885	−1,000
1876	−413	1886	− 960

It should be pointed out, however, that during the previous period France's

Clearly there could be no question of a modification of what Mr. Keynes calls the "natural" level of exports, as the needs not satisfied during the war obviously tended to increase the deficit in the commercial balance during the period following the close of hostilities. The appearance of a surplus at a time when all the resistances invoked by Mr. Keynes should have made it impossible, although it was a necessary condition of the equilibrium of the balance of payments, provides a fresh example of the extreme elasticity of economic matter and of its powers of adaptation, even when the disturbing phenomenon is "arbitrary" and "artificially produced."

The modifications undergone since the war by the various balances of payments provide, moreover, a still more decisive proof of the extraordinary power of the machinery which tends to maintain the equilibrium of balances of payments or to restore it when it has been artificially disturbed.

At the same time they permit us to form an estimate of Mr. Keynes' judgment that "at a given time the economic structure of a country in relation to the economic structure of its neighbours permits of a certain 'natural' level of exports."

In 1913 France's commercial balance showed a deficit of 1,540 million francs. This deficit was practically the same as that of 1912 (1,518 million francs). The situation which it indicated was the outcome of entirely normal conditions.

After the war, on the contrary, a quarter of the national territory—and the area which furnished France with by far the greatest proportion of her exports—had become unproductive. At the same time, an immense market with almost boundless requirements was created within the country for the reconstruction of the devastated areas.

For all these reasons, the country should have found extreme difficulty in exporting and could have imported to an unlimited extent. The "natural level" of the commercial balance, that resulting from the economic structure of the different countries concerned, should have involved a deficit much greater than before the war. If, therefore, Mr. Keynes' views were correct, there should, in fact, have been such a deficit.

commercial balance sometimes showed a surplus—for instance, from 1862 to 1866. But it is obvious that the payment of a foreign debt can only appear in the commercial balance if all conditions are equal with regard to the invisible elements of the balance of payments. What is remarkable in the case of France after 1870 is that a surplus appeared in the commercial balance at precisely the moment when theory would lead one to expect it. This only constitutes a presumption—but a very strong presumption—in favour of the said theory.

It is true that if such a deficit existed it would have produced a deficit in the balance of payments of the country, since clearly the invisible assets of this balance of payments were not greater after the war than before. This, however, is impossible according to the writers who maintain that the balance of payments of a country is always in equilibrium.

Further, if the views of these writers are correct, the deficit shown in 1912 and 1913 by France's commercial balance must have been compensated by a surplus of invisible exports, and it was generally acknowledged that before the war the great part of this surplus was formed by the income from foreign investments held by Frenchmen. During the war, however, these holdings greatly diminished. Many of the foreign securities which they comprised were handed over to the Government at its request, in exchange for French bonds, and were disposed of by it. Others, particularly Russian securities, became unproductive. If therefore the deficit of the commercial balance had remained after the war what it was in 1913, France's balance of payments would certainly have shown a deficit also. For this balance to be brought into equilibrium—and the writers whom Mr. Keynes criticises consider that, whatever the resistances of the economic milieu, a balance of payments is bound to be in equilibrium [1]—it was essential that after the war, in spite of all adverse circumstances, the deficit in the French commercial balance should be lower than what it was in 1913.

Here, therefore, we have a crucial test of the two theories, that of Mr. Keynes and that of the writers who deny the existence of a transfer problem. If France's commercial balance since the war shows a greater deficit than in 1913, the theory of the "natural" level must be true. Otherwise it is the theory which Mr. Keynes criticises that must be accepted.

The deficit of 1,540 million francs for 1913 was equivalent to about 297 million dollars.

In 1921, on the other hand, imports exceeded exports by 2,295 million French francs. The average rate of the dollar in francs during the same year was 13·49. Hence the deficit in the commercial balance represented approximately 170 million dollars, or 57 per cent. of the 1913 figure.

In 1922 the deficit in France's commercial balance was 2,552 million French francs, and the average rate of the dollar was

[1] Except during a period of budget deficits or flight from the currency. It is clear that when the holders of foreign currency do not repatriate the equivalent, equilibrium can never be attained.

frs. 12·33. The deficit in the commercial balance was therefore 206 million dollars, or 69 per cent. of the 1913 figure.

This result would be still more striking if we took into account the level of prices rather than the rates of exchange in comparing the deficits before and after the war.

Thus, despite the most unfavourable circumstances imaginable, the deficit in France's balance of trade was very materially lower in 1921 and 1922 than it was in 1913, although during the former period the reduction in the country's productive capacity, owing to the entire destruction of its most active factories on the one hand, and its enormous reconstruction needs on the other hand, would have led one to expect a considerable increase in the deficit in its commercial balance.

This unexpected result seems to decide between the two theories by showing that the most powerful "natural" resistances cannot prevent the restoration of the equilibrium of the balance of payments, even when the equilibrium has been disturbed by events of a purely financial nature. It shows, moreover, that the notion of a "natural" level of exports is a complete fallacy and cannot legitimately be invoked.

This conclusion would be brought out still more clearly if we could analyse here the machinery by which the equilibrium of the balance of payments is maintained in current practice. We have attempted this analysis elsewhere.[1] Suffice it to say that it led to the conclusion that, apart from periods of "flight from the currency" and of budget deficits, exchange and price movements tending to maintain the equilibrium of the balance of payments are bound to be effective, as they are bound to go on until the previous equilibrium has been completely re-established.

The same theory provides an answer to Mr. Keynes' objection that the raising of foreign Customs tariffs might make it impossible to restore the equilibrium of a balance of payments by making the increase in exports required for this restoration impossible. It is quite clear, of course, that if there is a machinery tending to restore the equilibrium of balances of payments when it has been accidentally disturbed, this machinery must prevent the raising of the customs barriers which surround a country from modifying that country's balance of commercial exchanges.[2] This is indeed

[1] "Théorie des Phenomènes Monétaires" (Payot, Paris), 2nd Part—and particularly Chapter VIII, §§ 2, 3 and 4. A summary of the theory was given in the pamphlet mentioned above: "Une erreur économique: l'organisation des transferts" (pp. 10 *et seq.*).

[2] We are speaking here only of the commercial balance, *i.e.* the difference between the value of imports and that of exports. It is clear, of course, that a

evident *a priori*, for if a change in Customs duties affected commercial balances, it would be possible, by raising simultaneously *all* Customs tariffs, to make *all* commercial balances show a surplus, which is absurd. As this is impossible, there must be machinery which prevents changes in Customs tariffs from disturbing the equilibrium in balances of payments, and this machinery is bound to be effective at whatever level Customs duties are fixed. In the work mentioned above,[1] we have shown that experience very clearly confirmed the accuracy of these theoretical views when the United States put a new Customs tariff into force in 1922.

Thus, in the different examples we have considered, the equilibrium of the balance of payments has always been restored, whatever the extent of the initial disturbance and however arbitrary it may have been.

We do not say, however, that unlimited sums could be transferred from one country to another; we simply observe that in the cases we have just studied the disturbance in the equilibrium of the balance of payments was greater than that which would result from the normal application of the Dawes Plan, and that equilibrium was always spontaneously restored without interference of any kind.

A complete theory of the phenomenon would show, however, that only sums taken from the resources of a balanced budget could be transferred. It would also indicate, as was said before, that monetary depreciation is by no means essential to the operation of the phenomena which restore the balance of payments to equilibrium.

We do not, however, desire to go into such considerations here. The chief aim of the present study was to gauge the truth contained in Mr. Keynes' assertion that to deny the existence of a transfer problem was to apply the theory of liquids to what in reality was, if not a solid, at least a sticky mass.

In every case, however, we have seen economic matter adjust itself with extraordinary elasticity to the influences to which it was subject, whatever their origin, and always, too, we have seen the phenomenon which theory taught us to expect govern the

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modification in the Customs tariff, by modifying the relative prices of the various foreign goods, modifies the exchanges of these goods and therefore modifies the constitution and value of the imports and exports, only the difference between their total values remaining constant.

[1] The monetary repercussions of a Customs policy: the application of the Fordney tariff in the United States in 1922.—*Op. cit.*, p. 305.

facts which responded in the most sensitive manner. Fluidity of the economic mass, sensitiveness of the phenomena which occur therein, these we regard as two essential observations of infinitely greater consequence than the transfer problem.

To believe, indeed, that resistances due to the very nature of things can prevent economic equilibria from spontaneously establishing or maintaining themselves, is to force oneself to admit the necessity of establishing them by concerted and systematic measures similar to those which would have to be taken by the Transfer Committee to ensure the equilibrium of Germany's balance of payments on the lines of the Dawes Plan. Such a conception leads inevitably to the practice of an *organised economy* similar in principle, if not in object, to the Communist economy.

To admit, on the other hand, that economic phenomena, left to themselves, are able in actual fact to restore or maintain with great exactness the necessary equilibria, leads to the view that the only effective means of avoiding or attenuating economic crisis is to remove or attenuate any obstacles which may stand in the way of spontaneous adjustment, and to avoid all measures which tend to immobilise the various factors of economic equilibrium.

Thus, to gauge the actual sensitiveness of economic phenomena, is to seek the solution of perhaps the most important political problem at present awaiting issue, that of the choice between the two tendencies of liberal economy and organised economy. It is on this ground that the question raised by Mr. Keynes—that of the mobility of economic equilibria—has seemed to us fundamental from the political point of view still more than from the point of view of economic theory. We have endeavoured to answer it in the limited sphere of international exchanges; we believe that it is worth systematic study in all spheres of economic life. Perhaps we shall endeavour in a future article to show that the conclusion we have reached is an extremely general one, and that in almost every case a systematic observation of the facts reveals the existence of economic phenomena attaining an unsuspected degree of sensitiveness and permanence.

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II. A Rejoinder from Professor Ohlin

§ 1. Mr. Keynes' theory of reparation payments and capital exports, as expressed in the last two numbers of this Journal,[1] in my opinion amounts briefly to this: the expansion of commodity exports relative to imports, which is necessary in the indemnity paying and lending countries, is brought about by an adaptation of *supply* conditions only. Wages must fall and, thereby, the costs and supply prices of export goods. International capital movements—under this expression I include also reparation payments—do not involve any changes in *demand*,[2] which tend to bring about the relative increase of exports.

Against this theory I have objected that such capital movements mean increased buying power in the borrowing (receiving) country—below called *A*—and reduced buying power in the lending (paying) country, *B*. Is it not obvious that the buying power of a country, like that of an individual, will exceed its (his) income by the amount of gifts and loans, quite independently of any changes in price levels?

Mr. Keynes' answer to this question is in the negative. There will be an increased buying power in *A* only in so far as *B*, through *lower supply prices*, is able to create a relative increase in exports. Then, however, this increased buying power "will have been *already* used up in buying the exports, the sales of which has made . . . payments possible" (p. 181). In other words, in Mr. Keynes' opinion, there can be no transfer of monetary buying power except in so far as the *real* transfer of goods is solved—*i.e.* the increase of exports relative to imports brought about—and then the buying power is at the same time used up. Therefore the monetary transfer cannot be a factor in bringing about the real transfer.

§ 2. To make clear why I think this is profoundly wrong, let me consider first a case of capital movements between two districts with the same currency system. Assume that *A* and *B* are parts of one country, and disregard the possibilities of labour migration between them.

A borrows a large sum of money from *B* to build a railway. It can take the money in notes or in cheques, whereby the deposits in the *A* banks grow, while they fall off in the *B* banks. In any case the buying power is increased in *A* and reduced in *B*, inde-

[1] See particularly p. 181 in the June issue.
[2] For qualifications to this statement, see § 4 below.

pendently of any commodity movements and certainly *before*[1] they take place. The monetary transfer is primary to the real transfer, and tends to bring the latter about in the following way: *A* buys more and *B* less of the goods which go easily between them ("international goods"), whereby the "trade balance" is directly affected. Furthermore, people in the former district use a part of the increased buying power to purchase "home market goods," which become more demanded than before, while the same class of goods becomes less demanded than before in *B*. Their prices may rise in *A* and fall in *B*, but whether these price changes are considerable or not, production of such goods is expanded in the former and reduced in the latter district, while the production of "international" goods moves in the opposite direction, *i.e.* is reduced in *A*. In that way *A*'s imports increase and its exports fall off. *B*, on the other hand, will buy less and is able to sell more without offering its own export goods on cheaper terms of exchange than before.

It is the very fact that buying power is greater than income in *A* and lower than incomes in *B*, which brings about the necessary commodity movements. Yet Mr. Keynes reasons all the time as if a country could not buy for more than its income, and as if the only way of changing its buying power were to change its income.

§ 3. Let us return now to the case of *A* and *B* being separate countries with different currency systems. The only essential difference between this and the last case is that no transfer of monetary buying power in a literal sense can take place, except in the form of gold. As, however, gold movements are clearly insufficient, the same result will be reached in another way. Credit will expand in *A* and fall off in *B*. The foreign bills—let us assume them to be in the currency of a third country[2]—which *A* receives from *B* will, *e.g.*, be bought by the central bank in the former district. If its gold reserves are too small for this expansion, it will let the exchange rate drop to the gold import point. When sufficient gold has come in, it will again buy the foreign bills, and the volume of credit will expand. In *B* the buying power is directly reduced by the purchases of foreign bills by people who lend the capital to *A* (or pay reparations). There will also probably be a secondary credit expansion in *A* and restriction in *B*. These changes in buying power[3]—which will

[1] The order of succession is an important question and distinct from that of the *size* of the changes in buying power.

[2] It makes no difference if *A* buys bills on *B* instead.

[3] The monetary mechanism of these credit variations can, of course, differ. The case in the text is merely an example.

probably be much greater than the amount of the borrowings and reparations payments, a fact which Mr. Keynes seems to overlook—can occur before the commodity movements take place and tend to bring them about in the way indicated above.

Evidently it is not true that there can be no changes in buying power except in so far as the real transfer is already solved by means of supply reactions. On the contrary, the changes in buying power, which are partly, at least, in a real if not in a formal sense a transfer of buying power from one country to another, are essential sides of the mechanism which brings about the real transfer of commodities. The changed credit policy[1]—restricting in *B*, expanding in *A*—affects buying power and, thereby, the balance of trade, independently of any effects on price conditions.[2]

On the other hand, it is, of course, true that the buying power is used up in the same proportion as the real transfer takes place. But, that does not mean that it has had no effect, as Mr. Keynes seems to think. Surely it is easier to sell many goods to a man who has got increased buying power, even though after buying them he has no longer greater buying power than he used to have!

§ 4. In his rejoinder in the June issue Mr. Keynes seems to make a slight concession—tacitly implied, perhaps, in his first paper—concerning the influence of *demand* reactions, as he remarks in passing that there will be a certain "reduction in consumption directly caused by the reparation taxes" (p. 179), and that "a reduction in the real wages of the German workers will cause them to consume less; a part of this reduced consumption will have the effect of benefiting the balance of trade" (p. 180). It follows from what I have said above that, in my opinion, this concession does not go far enough.

Note also that the second demand reaction—due to lower real wages—is to a large extent identical with the first one. Real wages fall because the workers bear a part of the burden of reparations. A further reduction in real wages can only occur in so far as Germany loses owing to less advantageous terms of exchange in international trade. This last wage reduction cannot, therefore, help to bring about the increase of exports relative to imports, which is necessary to pay reparations, but

[1] Certainly such changes in credit policy are *possible*. They may not be inevitable, but that is no argument. Surely it is the idea that Central Banks should make transfer as easy as they can.

[2] But changed price conditions will probably in some cases *help* to bring about the adjustment of the trade balance.

can only help to make good the extra deficit due to unfavourable terms of exchange.

Another necessary qualification to the whole of Mr. Keynes' reasoning is that not only wages, but other incomes as well, *e.g.* those accruing to the owners of fixed capital, can be reduced. The use of the classical labour value theory in international trade discussions has made it common to reason as if changes in incomes were identical with changes in wages.

§ 5. After the parenthesis in § 4 let me turn to Mr. Keynes' second line of defence against my criticism. His argument here is entirely different from the one discussed in the first three sections above. " If Germany borrows less, the first effect " will " be to bring in the Transfer Protection Clauses of the Dawes scheme. If so, the result would be that she would, for the time being at least, pay less Reparations " (p. 180). And later : " If Germany's foreign borrowing falls off, so, simultaneously, will her Reparation payments," except in so far as factors on the supply side operate.

I admit that I fail to see the justification for this assertion. Certainly if there is some mechanism by which a falling off in German borrowings " improves " her balance of trade, the reparation payments can go on. So until Mr. Keynes has proved that there is no such mechanism, the sentences I have now quoted are no argument at all. They are therefore irrelevant, if his other line of reasoning is not valid.

Of course there will be a " time lag " between the reduction of borrowings and the improvement in the balance of trade. But nothing prevents Germany from going on with reparation payments during that period, using a part of her reserves of foreign exchanges and gold. If she does, the changes in buying power will occur and the rest of the consequences I have indicated follow. Unless her borrowings cease suddenly, there seems to me to be no reason for assuming that the reparation payments would have to stop or even to be reduced.

In conclusion, therefore, I must uphold my contention that reactions on the demand side play their very important part in the mechanism of international capital movements just as well as reactions on the supply side. In my opinion, there has been a tendency to overlook[1] the former and to concentrate attention

[1] Ricardo alone among the prominent classical economists was an exception. He never accepted the orthodox price level variation mechanism in the case of subsidies and crop failures, but attempted to show that a more automatic and smoother adjustment would take place. Although he was not very explicit on this question and made certain untenable statements, it seems probable that

on the latter, with the consequence that a too sceptical view of the possibilities of such movements on a large scale has been taken. Anyhow, the clearing up of the theoretical difficulties involved is a matter of considerable practical importance not only for the handling of the reparation payments, but also for central banking policy in the future.

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III. A REPLY BY MR. KEYNES

My original article on "The German Transfer Problem" in the ECONOMIC JOURNAL for March, 1929, applied general principles to a particular case, without attempting to go deeply into the general principles themselves or even to enunciate them in a generalised form. As, however, the controversy, to which this article has given rise, develops—originally with Professor Ohlin of Copenhagen and now with M. Jacques Rueff of the University of Paris—the worst of it is that it moves, quite inevitably, from the particular to the general, so that full justice cannot be done to the points which have been raised without embarking on the general theory of International Transfers. Yet considerations of space forbid that I should attack so heavy a matter merely as a tailpiece to a particular piece of applied economics.

I must, therefore, do my best to indicate very briefly in what respects I cannot accept the criticisms of my commentators, apologising to them at the same time for not entering more profoundly into the general question and for certain unavoidable obscurities which they find in my treatment, due in part to the fact that my theoretical background in approaching these problems is as yet unpublished.

With M. Rueff's article I have the following differences of opinion :—

1. He misunderstands me in supposing that I agree with him that, when the adjustments are complete, the prices of all com-

he had in mind that reactions on the demand side would reduce the need for gold flows and price level changes. Bastable was perhaps the first to develop this idea clearly, although briefly, in "On Some Applications of the Theory of International Trade," *Quarterly Journal of Economics*, 1885. Curiously enough, there is no trace of it in his "International Trade." Wicksell's paper in the same Journal of 1918, "International Freights and Prices," is built on the same idea, which has lately played a certain part in the German discussion of the reparation problem.

modities within Germany will have been affected *equally*. It is of the essence of my argument that this should not be so, but that, on the contrary, the prices of home-produced goods in Germany should fall relatively to the prices of imports. For it is not simply a case of changing the value of money all round, but of changing the terms of international trade in a direction unfavourable to Germany, so that a larger quantity of exports than before will have to be offered for a given quantity of imports.

That real-wages in Germany will have to fall *less* than money-wages, I did indeed point out; for the prices of some of the goods on which German workers spend their earnings will have fallen *pari passu* with wages. But it does not therefore follow—as M. Rueff seems to suppose—that real-wages will not have to fall at all, and that it is merely a question of changing the value of money.

2. It follows that I do not accept " the principle of the conservation of purchasing power " in the form in which he states it. For I hold that the process of paying the debt has the effect of causing the money in which the debt is expressed to be worth a larger quantity of German-produced goods than it was before or would have been apart from the payment of the debt; so that the population of the debtor State suffers a loss of purchasing power greater than the original equivalent of the amount of the debt. Indeed if the world's demand for German goods has an elasticity of less than unity, there is *no* quantity of German-produced goods, however great in volume, which has a sufficient selling-value on the world market, so that the only expedient open to Germany would be to cut down her imports and consume home-produced substitutes, however inferior, and at an enhanced real-cost, however great.

3. There remain M. Rueff's historical instances designed to show that I have exaggerated the difficulty of bringing about economic re-adjustments. I agree that one has to be on one's guard against exaggerations of this kind. War and post-war experiences have provided us with instances of extraordinarily great readjustments successfully accomplished. But I must plead that I did not declare that such readjustments were *impossible*—only that they were *difficult*. I do not maintain that it is *impossible* to reduce German wages—after all, they have been far lower than their present figure within quite a short time ago—only that it is politically and humanly difficult (especially if one is cut off from the use of the weapon of currency depreciation), that this problem is distinct from the budgetary problem, and that the

extent to which the selling-prices of German goods will have to be reduced is the measure of the severity of the transfer problem.

I must, however, point out that M. Rueff's principal example—namely, France's readjustment to her post-war position—is quite exceptionally ill-adapted for the purpose of proving his point that such readjustments are *easy*. The violent social disturbances, the enormous redistribution of fortunes, and the wholesale disappointment of pre-existing contracts, which attended the prolonged and disastrous story of the depreciation of the franc to a fifth of its previous value, hardly afford a happy example of the *ease* of adjusting things. How short memories are, that M. Rueff, himself a Frenchman, should cite the post-war economic history of France in order to prove that economic readjustments are as easy as shelling peas!

Moreover there were certain features of the French situation, favourable to the establishment of a new equilibrium, which have no counterpart in the German situation. In the first place, the Dawes Scheme cuts Germany off from the use of currency depreciation, which is the one really potent method for changing at a *coup* the whole of a country's existing wage-structure. In the second place, the new adjustment in France did not require any permanent reduction of the level of real-wages. In the third place, the depreciation of the franc had the effect of actually getting rid of one of the principal difficulties, namely the excessive sums which the taxpayer owed to the *rentier*.

In fact where a country's difficulties are due to its owing a burdensome sum, readjustment is often brought about by its just not paying it. These are the precedents relevant to the German case, if it is historical precedents that M. Rueff wants. When the debt is owed in terms of the home currency, the relief comes by depreciating the currency; when it is owed in terms of a foreign currency, the relief comes by default. The majority of the countries which were heavy borrowers abroad during the nineteenth century found themselves at one time or another in the same sort of difficulty as that which I foresee for Germany, though on a much smaller scale, and they frequently escaped from it by defaulting more or less. If M. Rueff will read the reports of the Council of Foreign Bondholders, he will find that history is on my side, not his.

There are some sentences in M. Rueff's article which might be taken to attribute to me the belief that international balances of indebtedness do not always balance. They must, of course,

balance precisely, every day of the year—unless some sort of a default takes place. What I am suggesting is that it may prove *difficult* to avoid this way out. As I have said above, countries, much less hardly pressed than Germany will be, have often availed themselves of this resort.

Professor Ohlin's contribution raises quite a different sort of point. As before, I find it extremely difficult to be sure just what he means. Let me try to narrow the possible points of difference by expressing my own point of view in a way which most nearly meets his.

I do not maintain—as he seems in his first paragraph to think I do—that the requisite change in Germany's balance of trade must necessarily be brought about solely by an adaptation of supply conditions without any assistance from demand conditions. I have always been careful to say that prices in Germany must fall, not absolutely, but relatively to prices abroad. But I admit that I have attributed to changes in demand conditions very little practical importance in the particular instances before us.

If Germany was in a position to export large quantities of gold or if foreign balances in Germany were acceptable to foreign Central Banks as a substitute for gold in their reserves, then it would be a different matter. For if Germany could set the ball rolling by exporting sufficiently large quantities of gold to have an appreciable effect on world prices, this, I agree, might help the situation by changing demand conditions. But I was assuming that what Germany could do along these lines would be, in fact, quite negligible. Professor Ohlin's analogy of capital movements between two districts with the same currency system would only apply if Germany were in a position to export enough gold to make a measurable difference to demand conditions in the rest of the world.

This is where the difference of opinion between Professor Ohlin and myself comes to a head. He argues (in his § 3) that even if gold does not flow on a significant scale, credit will nevertheless expand in the reparation-receiving countries. But why? Of course if *B* (Germany) can pay *A* (the reparation-receiving countries) in foreign bills expressed in the currency of a third country, there is no difficulty. But this is begging the whole question. The problem arises precisely because, on our hypothesis, Germany has no such foreign bills. Germany can only acquire

such bills if she has already sold the necessary exports; so that these bills cannot be part of the mechanism which is to establish the situation which will permit her to sell the exports. I can make nothing useful of Professor Ohlin's § 3.

Finally let me remind him that even in so far as Germany can affect demand conditions in the reparation-receiving countries by exporting to them gold or its equivalent in foreign bills, this puts her at no advantage compared with all the rest of the world other than the reparation-receiving countries. There is the whole of the rest of the world in purchasing from which the receiving countries can employ their increased buying power. So we are, even in this case (which I cannot admit to be quantitatively important), brought back to the (to my way of thinking) crucial question of the extent of the elasticity of the world-demand for German exports. Professor Ohlin has not expressed any opinion about the extent of this elasticity or whether he thinks it important. Yet—on the assumption that Germany will have to increase her exports of finished goods by more than 40 per cent. to pay reparations without borrowing—this is to me the kernel of the whole problem.

As regards the final paragraph his § 4, I agree with him that a reduction in German incomes other than wage-incomes would be equally effective, provided the incomes in question are the earnings of a factor of production, so that a reduction in them lowers the costs of the German entrepreneur. But this proviso takes away practical significance from his observation; for there is not much likelihood of rates of interest in Germany being lower than elsewhere.

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REVIEWS

A Review of Economic Theory. By EDWIN CANNAN. (P. S. King & Son. Pp. x + 448. 16*s.*)

THE publication of Professor Cannan's long-expected work on Economic Theory is an event of the first order of importance for Economists the world over. It must also be an event of no small significance for the very distinguished author. For this is no mere addition to the endless series of general text books on Economic Theory. It is the culmination of a lifetime devoted to the study of our science, the outcome of a systematic attempt at reconstruction dating right back to the eighties. The vision which has given us successively the *Elementary Political Economy, Theories of Production and Distribution, Wealth* and the *Economic Outlook* receives here its fullest and completest expression. To few of us is it given to see the goal so steadily and to achieve it so triumphantly.

The *Review of Economic Theory* is essentially a work on principles. It is the general problems of Economic Science and the attempts that have been made to solve them which are Professor Cannan's subject matter, and very seldom does he allow concern with incidentals to deflect him from his task. But while the subject matter is not radically dissimilar from that of the traditional work on fundamentals, the method, the mode of attack, is different: it is comparative rather than positive. Whereas the average "Principles" commences with cut-and-dried definitions and then proceeds in more or less categorial terms to state what its author believes to be the truth about the various problems dealt with, Professor Cannan commences by examining possible definitions and only arrives at his own solution after a long historical discussion of what other people have thought on the matters under discussion. If a metaphor from the art of Sculpture be considered appropriate in this connection, it might be said that whereas the exponents of the positive method achieve their results by *modelling*, Professor Cannan, adopting the comparative approach, achieves his results by *carving*. The one method, as it were, *builds up* the ultimate construction by a process of addition, the other *reveals* it by the removal of superfluous material. The result is a work which is at the same time *Grundlegung* and *Dogmengeschichte*, a work on principles and a history of theory.

The comparative approach to the study of Economic Theory has not been immune from criticism. Why worry, we are asked, about the wrong opinions of dead men? Why when our own problems are so hard, should we busy ourselves with the problems of Smith and Ricardo? Whoever dreamt of basing the study of a natural science upon the obsolete works of its founders? Such are the questions of the sciolist. This book should be an abundant answer to them. It may be admitted that they have some show of plausibility. *If* Economics had reached the stage of advancement now reached by some of the natural sciences, *if* its subject matters were equally tangible and tractible to demonstrative experiment, then it may be conceded that the positive method would be the *only* method worth considering. In fact, however, it is not so. We have not yet reached the stage at which the speculations of our predecessors can be discarded as useless. There has been no Copernican revolution in Economic Theory. Nor indeed at the present day is there sufficient unity of terminology or unanimity of opinion for us to be able to dispense with the comparison of definitions and theories, save at the risk of misunderstanding and the neglect of essential elements of truth. Moreover—and for teachers this point is of some importance—experience seems to suggest that, in a subject so elusive and abstract as ours, the mere enunciation of unimpeachable truth does not, as it were, give sufficient dimensions to knowledge. In order to attain complete understanding it is not only necessary to know what is right; it is also necessary to know what is wrong. You do not understand the emphasis, the inflections, of the theories of to-day, if at the same time you do not know the nature of the theories they were designed to supplant. Indeed it may be contended, I think, that many of the most interesting products of contemporary speculation are almost unintelligible, or at any rate lack a great deal of their full meaning, unless they are studied in conjunction with the theories out of which they developed. This is incontestably true of much of what is most characteristic of Marshall. Professor Cannan's book affords ample proof that it is true in many other cases. It is hard to think that the severest critic of the comparative method could read this book and not feel that at almost every point his knowledge of what has been done in our own times had acquired new significance.

To summarise or even to attempt to enumerate Professor Cannan's own contributions to theory would obviously be out of place in this notice. There is scarcely a page which does not

contain some innovation of analysis or treatment, some new arrangement or some vivid comment which lights up whole wildernesses of obscurity. But the book must be read as a whole for the full value of each part to be appreciated. Detailed comment on particular sections may well wait till a later season.

But speaking very broadly of his position as a whole, certain general characteristics may be noted. In the first place is the extraordinary realism of his treatment. Those who imagine that a scrupulous attention to the precise significance of terms and a fine flair for nice differences of meaning necessarily imply an interest detached from realities, will be painfully surprised by this volume. Professor Cannan is a theorist of the theorists, in that—to use his own criterion—he is always searching for "generalisations about the causes and effects of given institutions and practices"; but he has singularly little use for theory as theory. Few generalisations find their way into his system which have not a definite function to perform in answering questions about workaday matters of practice. He is not concerned with what have been called the metaphysics of our subject. He shows little sympathy—I am inclined to say almost too little sympathy—with the contemplation of abstract constructions; there are few discussions of "limiting cases" in his theory. All this shows itself very strongly in his treatment of particular problems. The problem of why things exchange for one another in particular ratios, which has seemed so important to other economists, is for him quite subordinate to the problem of what causes changes in these ratios. The problem of why there is a rate of interest at all—the King Charles' head of a whole library of modern controversy—is dealt with in one section of his chapter on the value of capital and income. The bulk of the chapter is devoted to explaining why the rate of interest changes. "I think the answer" (to the question why is there a rate of interest), he says, "is a mere corollary to the answer to the question what makes the rate rise and fall." In short, Professor Cannan succeeds in producing that kind of economics which the German Historical School and the American institutionalists have demanded, but which, because of a childish theory of method and an inadequate comprehension of theory, they have totally failed to deliver. There have never been any institutionalists at the London School of Economics and I doubt if there ever will be; and if any inquiring member of that sect can bring himself to look inside the cover of anything with so damning a title as *A Review*

of Economic Theory he may come to see the reason. Why should those who eat meat bother to call themselves meatarians?

Closely allied to this quality of realism comes another, equally characteristic, which, for want of a better phrase, I denominate the secular outlook. Professor Cannan once said that he had tried to be a good mundane economist. If by mundane economist we can understand one who not only takes wide views in space, but wide views in time also, this term would express my meaning. Professor Cannan never lets us forget either that we are members of a world community or that the development of this world community is continuous. The long run in which we are all dead has no terrors for this economist. The intricacies of the short period and the parochial view are relegated to a position of minor importance. Sometimes, I am inclined to think, exception might be taken to this attitude. I suspect that in regard to Professor Cannan's theory of money, for instance, it has sometimes given rise to misunderstanding on the part of outsiders. I have sometimes thought that the whole controversy with regard to the creation of credit arose from a misunderstanding of this nature. And I confess that I myself am a little loath to believe that there is *nothing* in the old theories of international trade which can be held to illuminate certain problems of national wage differences. But how important are these incidentals compared with the strength and the sweep of the main vision. We are away from the petty *minutiæ* and complications of day to day fluctuations securely placed where the great forces of the secular trend, the cosmopolitan change are seen in their proper perspective. The fact that Professor Cannan can dismiss in a few brief sentences problems which in detail are the main preoccupation of many modern economists, will not prevent those of us who feel that we can contribute something to their exact solution from continuing to work at them, but it should at least make us realise their true place in the picture.

In the last chapter (which, by the way, to be appreciated fully should be read in conjunction with the chapters on Labour Incomes and Co-operation) Professor Cannan turns his attention from pure theory to contemporary aspirations and tendencies. These are chapters which should be read by all who wish to form a balanced judgment on the social problems of our day. It would be difficult, in the whole range of economic literature, to find passages more closely packed with quintessential wisdom. They should be read, too, by those who wish to get a clear view of Professor Cannan's own attitude to these problems. In the

past, to those who were still enmeshed in the old controversy of socialism *versus* individualism, this attitude may have seemed a little aloof. At the present time, now that that controversy is tending to drop into the background, it may be seen, I think, to have been considerably in advance of the day. Professor Cannan has never been an individualist in the sense that he believed that free competition would bring about results necessarily more desirable than any other form of organisation. For him it has always been a question of asking which form of organisation among many was most suited to particular purposes, and at particular moments; since he has had a closer eye for the growing significance of public utility corporations and the joint stock company than most, to attack or defend a mythological individualist state has always seemed to him an unnecessary exercise of imagination. On the other hand, placing himself at what I have called the secular viewpoint, and perceiving the dominating importance of a right distribution of men and machines between different occupations and different places, he has not shared with those whose concern is with the short view and the local interest, any quick disposition to throw overboard those institutions of the system of co-operative competition which help to secure these ends, before better instruments have been devised for the purpose. Nor, when contemplating probable changes in these institutions, does he feel himself obliged to regard the present territorial division of the world's surface into national areas as being necessarily permanent, or the states which rule over these areas as affording the best instruments for new forms of industrial government and control. In this perhaps he may once more seem to become detached and unsympathetic: Economic Nationalism dies hard even among the enlightened. But it yet remains to be seen whether, here, too, he is not considerably in advance of his day.

Of some books it may be said that they look back and resume an epoch of development. Of others that they look forward and anticipate developments which are to come. Of very few can it be said that they look both backwards and forwards and bring to the present that sense of lively continuity which derives from awareness of past endeavour and future possibility. But it can truly be said of this one. You may agree with this book. You may disagree with it. But you cannot deny either its importance as a landmark, or the weight of authority with which it is written. Professor Cannan says of his work that his hope is that it may yet make a few students want to go on to enlarge a science still in

its infancy. Brave hope, generous vision! If we who come later fail it, it will not be for want of example of a high standard and a shining achievement.

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Wages in Practice and Theory. By J. W. F. ROWE. (Routledge: Pp. 277. 12*s.* 6*d.*)

MR. ROWE'S study of wages in the coal-mining industry added so much to our knowledge that the publication of the rest of his researches in the field of wages has been eagerly awaited. The volume in which he has embodied these puts students of wages under a heavy additional obligation. It is divided into three parts. All are interesting and contain material of importance; but it is the first that makes the book indispensable. In it he gives the results of his study of the movement of wages between 1886 and 1926 in five industries—coal, building, cotton, engineering, and railway service—three grades, typical of skilled, semi-skilled and unskilled work, being taken in each industry. With this material in hand, he examines the relation between rates and earnings, the process and extent of standardisation of rates, the relation between wage-rates and skill (which illustrates well in the case of the "skilled" rate of turners and fitters, the influence of trade-union policy), and concludes with an essay on correlations as a guide to wage-theory—an essay which brings out perhaps more clearly the difficulties in the way of such a method than any immediate results to be hoped for.

Interesting and suggestive as the use he makes of them is, students will be most grateful to Mr. Rowe for the figures themselves. They show a wide, and apparently growing, divergence of movement between the different industries, and between the different grades. It is a fair inference, which Mr. Rowe draws later, that custom had exercised a diminishing, and collective bargaining an increasing influence throughout the period. Mr. Rowe criticises severely, as misleading and useless, the index of changes in wage-rates which the Board of Trade published before the war and the Ministry of Labour publishes now. These figures, however, had a use, and were not seriously misleading, as an index of the time and direction of wage-changes in the study of trade fluctuations, and, pending Mr. Rowe's arrival on the scene, they were much better than nothing. As Professor Bowley demonstrated, they could be corrected by the use of the wage-

censuses and the occupational censuses to throw a good deal of light on the distribution of the national income. Mr. Rowe also throws doubt on the validity of the contrast drawn between wage-movements in "sheltered" and "unsheltered" industries; but his own indices show an average increase over 1913 of 107 per cent. in the "sheltered" occupations as compared with only 78 per cent. in the unsheltered (p. 45), and while "the cotton industry presents an awkward exception," there is an obvious explanation here in the financial difficulties of the employers, which make it impossible for them to face a lock-out, and *prima facie* evidence that the rates are out of harmony with the industry's post-war position in the prevalence of short time. The chief impression left by this part is, perhaps, of the advance made in wages in the generation before the war, and also since 1913. The figures of nominal rates, which were all that we had before, understated both the pre-war and post-war advance of money wages, while the reduction in weekly hours since 1918 conceals a further additional advance.

The survey in Part II of collective bargaining in the industries studied does something to bring up to date the information which Mr. and Mrs. Webb gave about nineteenth-century labour. The study of different union attitudes and policies in Chapter VIII and IX is particularly interesting. It is hard to believe, however, that "the doctrine of the right of a man to a certain conventional standard of living" was foreign to the trade union mind of the eighteen-eighties (p. 153). In another connection it is pointed out that "custom may be said to have constituted the real basis of the trade union standard rate. The standard rate was not an original conception of Trade Unionism" (p. 156); and conversations with old trade unionists twenty and twenty-five years ago lead the present writer to think that the doctrine in question was of very old standing even then. If Mr. Rowe post-dates a development here, he seems to antedate one when he says that "the struggle for recognition . . . was brought to a conclusion during the twenty years before the war" (p. 176)—the Mond Conference found it necessary to re-affirm the principle: and another, when he says (p. 178), "relatively few important firms to-day confine their activities and interests solely to one particular line of production"; coal and the textile industries are not unimportant exceptions.

The most challenging part of Mr. Rowe's book is the third, in which he attempts an application of his discoveries to the theories current about wages. It is offered "as an interim and not a final

report on the subject," but put forward now on the ground that its contentions, if valid, "involve certain changes in the attitude and policy of the community, which are of immediate practical moment." Roughly summarised these contentions are—(1) that the Marginal Productivity theory of wages provides only a "background" for the study of wages; (2) that the influence of collective bargaining and trade-union policy has been neglected ("all existing wage theories appear to ignore a phenomenon which has completely changed the whole conditions of the labour market . . . namely, the rise to power of trade unionism": p. 194; cf. p. 198); (3) that unions, by pressing employers for higher wages, can compel employers to be more efficient and so to raise the marginal productivity of their labour; therefore, "Trade unions ought consciously to try and keep wages not in exact adjustment with, but a trifle above, the current marginal productivity equivalent; to accept the fact that this is bound to produce a variable, but permanent, margin of unemployment, which is of their own deliberate making and no inherent fault in the capitalist system;" to facilitate industrial reorganisation and to mitigate the incidence of unemployment on individuals (p. 229).

The criticism of pre-war wage theories seems to me to be substantially just, if over-stated; but those theories were elaborations of a theory of market-prices, rather than attempts to explain individual incomes, and inevitably tended to be static in character. And they were subject to a very important exception (which Mr. Rowe's reference to it overlooks) in Mr. and Mrs. Webb's *Industrial Democracy*. Part IV of that work is given almost wholly to a discussion of wages theory and the bearing of trade union policies upon it, and the third chapter is an elaborate argument to show that trade unionism makes higher wages possible by compelling increased efficiency. The novel element, therefore, in Mr. Rowe's presentation is the policy he recommends to the unions. Mr. and Mrs. Webb described the unions—with approval—as using unemployment as a "barometer," and withholding demands when unemployment went up; Mr. Rowe thinks the pressure might be maintained, even when unemployment has been caused by the union's successful claims.

To the present writer the older-fashioned view of Mr. and Mrs. Webb seems to show a sounder grasp of the mechanism and possibilities of industry. There are cases in which an industry can afford to reorganise in spite of labour-costs which compel it to restrict employment; but they are exceptional. Moreover, there is no certainty that pressure for higher wages will bring about

increased efficiency. Mr. Rowe's description of trade union policy in the building industry—" taking it out of the consumer " —illustrates one possibility; his reference (p. 172) to craft unions securing gains at the expense of fellow wage-earners points to another. In other words, Mr. Rowe ignores the possibility that a class of labour may increase their marginal (value) productivity by compelling, or assisting, their employers to put prices up. The old theory of wages did direct attention to this competition of industries and trades for the joint product of all industry, and did consider wages in their other aspect of costs, an aspect in which Mr. Rowe is not interested. It is rather, therefore, as a supplement to, than a criticism of Marshall, that Mr. Rowe's theories should be considered. These criticisms are, however, only so much additional evidence of the stimulating character of Mr. Rowe's book, points that may be dealt with in the " final report," to which his readers will all look forward.

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The Unemployed. By R. C. DAVISON. (Longmans, Green & Co. 1929. Pp. 292. 7*s.* 6*d.*)

THIS is probably the most valuable study of unemployment that has appeared since Sir William Beveridge's classic. It is a competent and considered survey; and it has the merit of being exceedingly well written, in virtue of which it should appeal to a wider public than that of students and administrators steeled to endure the dreary language of the economic expert.

Mr. Davison has not been inordinately ambitious. He has no complete solution to offer of the problem—or more accurately of the problems—of unemployment. He did not set out to do more than discover who are the unemployed, what sort of things we are doing for them, and where those things are likely to lead us and them. He is, in fact, concerned rather with cure than with prevention, though his study illuminates incidentally some of the paths along which it might be useful to seek for effective measures of prevention. Naturally he has derived nearly all his material from familiar sources open to all, chief among which are the official publications of the Ministry of Labour and Ministry of Health. But he can claim to be the first writer to have brought this material together, and to have welded it into a consecutive and critical narrative of twentieth-century attempts to deal with the unemployed.

In this book, then, will be found a history of the vicissitudes

of Government policy about relief works, an outline of the growth of unemployment insurance and a careful analysis of the composition of the present unemployed army. On relief works Mr. Davison is particularly interesting, even if he is rather unmerciful. The work of the Unemployment Grants Committee, for example, he thinks should be viewed not as a contribution to the problem of finding work for the unemployed, but as a circuitous method of equalising the rates in different areas; nor does he seem to have much sympathy with the cherished policy of acceleration and postponement of public works to balance the trade cycle.

The chapters on unemployment insurance are chiefly concerned with disentangling the essential from the merely trivial modifications in the British scheme produced by the bewildering variety of Unemployment Insurance Acts. Mr. Davison here undertakes a task which a good many others have attempted; but he has certainly made as good a job of it as any of his fellow-labourers in this rather dreary field. His chief personal conclusion, which will be unacceptable to many reformers, is that no system of insurance can ever be the sole agency for relieving the unemployed.

Perhaps the most useful part of the whole work is the section in which Mr. Davison deals with what he calls the analysis of the unemployed; for this brings the question of unemployment back from the realm of abstract issues on to which it has lately been further and further driven into terms of individual lives. Like the title of this book it focuses attention not on unemployment but on the unemployed. The lesson of these chapters is appreciation of the monstrous waste of human material which cripples our economic system—a waste which arises from misemployment as much as from unemployment, and which the economists and psychologists are only just beginning to recognise, and that only in the most general way. Now that we can blame abstractions like the war and the decay of the staple industries for unemployment, we are the less disposed to give due responsibility to our own indifference to the value of ability and skill, and to our failure both to develop these and to create opportunities for their exercise. Mr. Davison is inclined to attribute a much larger proportion of existing unemployment than is generally admitted to defective industrial capacity, largely remediable. He has much to say about the downward drag of unemployment lowering the industrial status of the former aristocrats of labour as they sink into the unskilled class to avoid complete idleness. But it is not unemployment alone which is responsible for this.

Indeed Mr. Davison is surely altogether too optimistic when he writes: "If, when the state of employment is good, a list of the able-bodied wage-earners in any district were arranged in order of their industrial status and personal merit, and if a parallel list were drawn up of all the jobs existing in that district in favourable times, it would be found that appropriate work suitable to each wage-earner's status would be more or less readily available." It is in unfavourable times, he adds, that men tend to take work beneath their capacity. But is not the apparent coincidence of jobs and men in good times largely illusory in so far as it is a man's job which determines his status quite as much as his status which determines his job?

For constructive measures Mr. Davison pins his faith chiefly to intelligent schemes of industrial training. He would also like to see established a system comparable to the King's Roll for disabled men, under which firms would undertake to employ a certain proportion of the elderly and infirm who are the casualties of civilian industry. There is evidence, he thinks, that the preference given to ex-Service men now operates unjustly towards the young workers who have come into industry since the war.

It is lamentable that the book has no index.

BARBARA WOOTTON

The Theory of the Cost-price System. By A. J. W. KEPPEL. (Allen and Unwin. 1928. Pp. 188. 6*s*.)

GREAT claims are made for "The Cost-price System." "No writer in recent times has brought a more compact and relentless logic or more audacity and independence of view to the task he here undertakes." (Mr. J. A. Hobson's Introduction.) "We have gone deeper than any economist with whose works we are acquainted . . ." (p. 171.) "Under the Cost-price system Canada might easily fill up in twenty years." (p. 137.) "The Cost-price system is going to find its way all over the world. It is going to lead to a World Economy." (p. 133.) I content myself with stating Mr. Keppel's argument, so far as I have been able to disentangle it from his numerous disquisitions upon ethics, education, public finance and the hopeless stupidity of economists.

Mr. Keppel asserts that the return upon the whole product of labour normally shows a natural growth over the cost. This growth he calls the "Surplus." He distinguishes between that portion of the product which is necessary for the maintenance of labour and the "Surplus." The "Surplus," he holds, should

pass into "Costs of Growth" and "Costs of Improvement in the Standard of Living." Under the existing system the "Surplus" is badly distributed. "Rent," "Interest" and "Profit" arise as uneconomic factors from artificial scarcities in Land, Capital and ordinary goods by means of the manipulation of Exchange. Seeking to eliminate "Rent," "Interest" and "Profit" and to secure the best possible application of the "Surplus," Mr. Keppel proposes an economic system based upon the exchange of all goods and services at Cost-price. He anticipates no great difficulty in arriving at the Cost-price of goods. "The great monopolies can best show us the way in this." In regard to wages and salaries, Mr. Keppel holds that what each requires is the Cost-price of his labour. "What in practice is the Cost-price of labour? It is the average wage." Moreover, all wages in Mr. Keppel's system will gradually tend to a uniform level. "There is no reason to suppose that some kinds of labour cost more than other kinds to produce." Only artificial scarcities reflect themselves in the wages of labour. In the Cost-price System—there being no artificial scarcities—it is impossible that there should be disparities in the reward of two or more necessary kinds of labour. The nearer the wage of the labourer approaches to the average wage—which average is taken as being £100—the more nearly is the labourer worth his wage. A wage of £100, uniform and fixed ("We propose to carry the wage right through life at the same figure"), does not offer a very exciting prospect, but Mr. Keppel assumes that prices will fall considerably once his system is established. I am not clear whether the Government, realising the value of Mr. Keppel's proposals, is to use its power to enforce them or whether Mr. Keppel hopes that the irresistible logic of his case will so convince his fellow-citizens that State action will be unnecessary.

J. LEMBERGER

University of Belfast.

Agricultural Economics. By GEORGE O'BRIEN. (Longmans, Green & Co., Ltd. Pp. viii + 195. 10*s.* 6*d.*)

THE economics of agriculture has provided, under various and less grandiloquent titles, subject for controversy over a lengthy period of time. In various countries it has developed upon different lines, in Great Britain being more often approached by the way of economic history, fortified upon occasion by statistical analysis. Its followers in the United States have tended to

devote their energies in the direction of *ad hoc* investigations into questions of marketing, the pros and cons of alternative systems of land tenure and cost of production studies, the latter in turn superseded by the more complete survey methods; there, too, works bearing so comprehensive a title as that of the book under review have frequently been both encyclopædic in character and produced by co-operative methods. The pure economist, possibly exhibiting undue diffidence, more probably owing to lack of interest, seems to have left the subject alone, since he has generally confined his incursions to a discussion of the applicability of general theories to the peculiar characteristics of the industry. It is, therefore, especially gratifying to find a work emanating from this side of the Atlantic which treats the problems of agriculture from the economic standpoint and at the same time unobtrusively disposes of the misconceived panaceas put forward by those financially interested within the industry or by outsiders ignorant of its physical limitations. Professor O'Brien rightly defines his subject as "the application of general economics to the craft and business of agriculture," and specifically excludes from his field "rural sociology," "land economics" and any consideration of the present and future relationship between food resources and population. Holding that the remaining fundamental considerations have in the past been neglected by both writers on agriculture and on economics (after demolishing the wider claims in this connection of certain American and French authors), he most successfully concentrates his attention upon a highly important but limited field. Incidentally, his statement that "Chairs of Agricultural Economics have been established in many Universities" will surprise readers in Great Britain and Ireland, who must turn their eyes to the United States, where examples of a single university maintaining several such posts are not unknown. Two of the three chapters into which the work is divided contain numerous sections, the diversity and value of which are apt to be concealed by the prosaic titles accorded the chapters themselves. After a brief but skilful introduction, Chapter I (occupying only ten pages under the heading of "General Agricultural Prices") touches upon the inelasticity of supply in agriculture and the two types of lag therein experienced. Chapter II ("Particular Agricultural Prices"), extending to eighty-six pages, forms the best presentation of the factors influencing agricultural supply and demand which has yet appeared. While the author is catholic in his selection of references (few writers upon the subject have provided such excellent foot-notes), it is

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particularly gratifying to find the names of Marshall, Edgeworth, Pigou and Cannan quoted upon page after page of this portion of the work. Section 3 of the chapter provides a first-rate summary, fortified by diagrams, of the incidence, in various circumstances, of diminishing returns, and those portions of its successor, entitled "The Cost of each Factor of Production," well illustrate the shattering of many political and social beliefs upon the rocks of economic fact. The third chapter, "The State and Agriculture," whilst forming in its writer's words, "a discussion upon the ways in which the prosperity of the agricultural industry may be assisted by action on the part of the State," is of added value in that it gives in effect a review of the policies recently pursued by this and other nations. The seventy pages in question should do much to dispel the completely mistaken, but far too widespread, belief that the British Government pursues a retrograde policy towards agriculture. Greater praise cannot be given to Professor O'Brien's work than by saying that it is too short; one could indeed wish that its 180 pages had been doubled in number. He must add to the debt of his readers by giving them, in the next edition, his views upon many questions in addition to those he has so ably dealt with in a work which deserves the widest possible circulation among economists, agriculturists and the general public.

J. A. VENN

The Reserve Banks and the Money Market. By W. RANDOLPH BURGESS, with an introduction by BENJAMIN STRONG. (Harper & Bros., New York and London. 1927. Pp. xxiv + 328. 12*s.* 6*d.*)

MR. BURGESS'S book on the Federal Reserve system makes an admirable introduction to the study of that subject. The text is clearly and simply written; there is an excellent apparatus of diagrams and summaries to assist the reader. Mr. Burgess describes what is most important in the constitution and functions of the Banks; he is more interested in their present situation than in their history, and only treats of the past when a knowledge of it is necessary to an understanding of the system as it is. Students in search of new things will find in Chapter IX a very interesting analysis of the day-to-day relation of the New York Bank to the market. And from the book as a whole they will gain a new insight and sense of proportion by learning the weight which one intimately familiar with the working of the system attaches to its several parts.

The book was written too soon to include an account of the

events of last year. It is possible that even Mr. Burgess could not yet give with certainty a true interpretation of the great Stock Exchange boom. But anyone who has read this general survey will know enough to perceive that much current criticism of Federal Reserve policy was misplaced and ill-founded.

On the subject of the acceptance market Mr. Burgess observes that it is "far from complete. There are hundreds of domestic transactions which might be financed through the bill market more advantageously than by the methods now employed. . . . The market for bills in this country is now too narrow and too dependent upon the Federal Reserve Banks." These opinions are confirmed by recent events. In 1928 there was an increase in bills outstanding of 20 per cent. In the early part of the year the market absorbed them; but with the decline in long-term lending abroad (a large part of the bills are usually held on foreign account) and the rise in the call rate, the Federal Reserve system had to support the bill market to the extent of $300 million. Indeed almost the whole of the expansion of Reserve credit normal and necessary in the autumn took this form last year; the increase of Federal Reserve security holdings was a mere $50 million, and there was no extra re-discounting by member banks. Finally, the Federal Reserve bill rate had to be raised on to a level with the re-discount rate. The system has stimulated the drawing of bills; but it has not solved the problem of providing a market for them.

R. F. HARROD

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Post-War Monetary Stabilisation. By G. CASSEL. (Columbia University Press. 1928. Pp. 109. 10*s*. 6*d*.)

THIS book gives in published form three out of six lectures delivered by Professor Cassel in the University of Chicago and the University of Columbia, the other three being reproduced in another volume entitled *The International Movements of Capital.* It is perhaps unfortunate that the six lectures could not have been printed in a single volume and at a more modest price. In the present volume the subjects discussed are, (*a*) Inflation and Stabilisation of Currencies; (*b*) the Stabilisation of the Value of Gold; and (*c*) the New Gold Standard. These lectures, however, do not contain anything which Professor Cassel has not discussed elsewhere. In the second of the three he returns to the question of a probable gold shortage leading to a fall in the world level of

gold prices. The argument here is based upon the idea that in order to maintain stable gold prices, the world's gold stocks must increase at the rate of 3 per cent. per annum, that being the rate which appeared to be necessary during the period 1850–1910. Taken together with the repeated forecasts of an important check to world gold production, this assumption would certainly point to the existence of a serious danger in the near future. But the particular argument which is advanced here is not altogether convincing. Post-war monetary conditions are vastly different from those which obtained before the war, a fact which Professor Cassel stresses elsewhere. But it is scarcely valid to postulate such a change and at the same time to assume that the monetary demand for gold will continue to increase as it would if no such change had occurred. The rates of growth of population and of trade are important in this connection. With regard to the first, a smaller rate of growth seems to be certain. With regard to the second, the prospects are less definite, but it may be some time before the pre-war rate of increase is recovered. Equally important are the possible and probable economies in the monetary use of gold. A return to internal gold circulations is unlikely to be made on any large scale, and the adoption by many countries of the gold-exchange standard has made possible an important economy. What is perhaps of greater uncertainty is the permanence of this last change. Certain recent events have been somewhat disquieting, and if central banks should aim at maintaining unnecessarily high gold reserves, the danger which Professor Cassel indicates is likely to be a real one, even though his first assumption may be disputed. The present world gold production only represents about 2 per cent. of the total gold stock, and in order to maintain such a proportion, the annual gold production must continue to increase. If the mining experts are correct, that increase is unlikely to occur. In that connection, however, there are three main factors to be considered: (*a*) the elasticity of supply, (*b*) the development of technical improvements in mining, and (*c*) the possibility of new discoveries. The net effect of the operation of these factors cannot be anticipated. The history of gold production has been largely a history of spectacular changes. But on the present prospects the importance of a rational treatment of central bank reserves seems to be clear.

D. T. JACK

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Bankers' Balances. By L. L. WATKINS. (A. W. Shaw Company. Pp. xvi + 429.)

THIS book consists of a study, extending from the earlier years of the century up to 1926, of the movements of bankers' spare funds in the U.S.A. It was awarded the Triennial Prize of the Chicago Trust Company for "the best original contribution to knowledge and advancement in the field of business development and the modern trust company." Both the feasibility and the usefulness of such a piece of research result from the existence of a large number of banking units—with the correlative absence of branch banking—and the peculiar sort of banking stratification which is found in America. On November 1, 1912, for instance, when there were about 25,000 separate banks in the country, eight New York banks alone held the spare balances of three-fifths of this total. Such a statement illustrates the important part played by bankers' balances, and also their preponderant centralisation in New York (and other large cities) previous to the 1913 and subsequent reorganisations of the reserve system.

It has been Dr. Watkin's task to make an exhaustive survey of the effects on balances of these reorganisations; and, since he finds that "Concentration within New York is more marked than prior to the establishment of the Federal Reserve System" (p. 58), in particular to relate this result to certain disabilities asserted to exist in the present working of the banking machine. In dealing with these he has given the greater attention to the questions as to why the facilities provided for in the Federal Reserve System have not in larger measure replaced those given by banking correspondents; as to whether the System has succeeded in divorcing the funds of the commercial banks more completely from the security market; and what use is made by the city banks of the funds which they receive from correspondents.

Of necessity he has dealt with these topics statistically, and no fewer than 97 tables and 18 charts are used. In the narrative itself there is a mass of statistical detail. The burden of assimilation—always heavy—is eased by end-of-chapter summaries, and by a final chapter which is used for collating and reviewing the whole of the material.

A brief review precludes the full citation of the conclusions reached. In the main, however, these are made dependent on the statistical data and many of them are not new—*e.g.* it is shown that centralisation of cheque collection has tended to reduce the necessity for balances. The most interesting, and in

view of recent Federal Reserve experience the most significant conclusion is concerned with the relative size of resources devoted to investment, as opposed to trade finance. In view of the obvious importance attaching to the topic prior to 1926—the year to which the study has been carried—it is not discussed at adequate length in this big book; and of course events since would have warranted even more attention. Yet Dr. Watkins has the courage to rebuke the commercial banks "for the continuous stimulation of the security market, leading to the excessive output of new securities, and inflation of security prices" (pp. 377–378). Whether or not banking students feel disposed to agree with the denunciation, in view of the new interest in such a fundamental problem, it will not be unprofitable to scan the data made available by Dr. Watkins in an altogether useful work.

J. SYKES

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The Banking Process. By R. G. RODKEY. (New York: The Macmillan Company. Pp. xii + 354. 10*s.* 6*d.*)

THE author of this book has been inspired to write it because, in his view, all existing American books on banking neglect to analyse and describe the actual way in which the American system works. Instead, Dr. Rodkey argues, they are overloaded—if not overwhelmed—by generalised theory, which is not properly and adequately related to the principles of banking.

Those English students who have made it their task to become tolerably well acquainted with contemporary American banking writings will sympathise with the tenour of the argument, even though, remembering such works as that by Chester Phillips on *Bank Credit,* they may not agree with its absoluteness. In one respect, indeed, they would probably go farther than Dr. Rodkey and point to the curious similarity, if not uniformity of treatment which has been given to the subject by many American authors.

On these grounds, then, the book justifies its existence. The work entailed by it has, moreover, been done with the thoroughness which marks most American volumes on banking; it is printed and arranged with regard for clearness; and its accuracy is estimable. Attributes such as these go far to make it a useful text, which, indeed, the author presumably wishes it to become. Comment is needed, however, on certain points. One is led to doubt, for example, if the whole of the 70 pages occupied by the appendices and the index are really needed. Again, in a book

having this kind of bias there ought to be a somewhat better balance between description and analysis, and conclusions should not so often be withheld. Most of all one regrets that Dr. Rodkey has tersely but ruthlessly preached the doctrine of Dr. Leaf concerning loans and deposits without indicating that he has informed himself on the subsequent discussion which Dr. Leaf's arbitrary statement provoked.

J. SYKES

Banking Theories in the United States before 1860. By H. E. MILLER. (Harvard Press. Pp. xi + 240. 11*s*. 6*d*.)

THIS book is the thirtieth volume of the series of Harvard Economic Studies, and it consists of an expanded doctoral thesis. The method of arrangement is by topics, of which there are four, viz. :—The Utility of Banks as a Source of Media of Payment; The Utility of Banks as Agencies in the Distribution of Loanable Funds; Bank Notes and Bank Deposits; and Banking Policy and the Business Cycle. Around each of these the relevant chapters are built, and these in turn are based on chronology. The result is to produce a well-arranged volume, which is therefore useful for reference purposes.

The actual historical work has been done well. There is ample documentation, both in the footnotes and in the comprehensive bibliography; the inferences drawn are well-founded; and a good compromise has been struck between word economy on the one hand and the making of an interesting narrative on the other. In respect of all these points Dr. Miller's work is to be commended. More generally, while it is to be expected that readers will be inclined to agree with the author that in the 1820's and 1830's American theory was fifty years behind English theory, I believe they will find it somewhat of a task to agree that "In the analysis of the nature of bank deposits, of the dogma that the issue of notes against real commercial paper is self-regulative, of the nature of the business cycle, American writers seem to have reached sound conclusions before their English cousins did" (p. 5). To judge from the cited bibliography of English writers, Dr. Miller is not sufficiently acquainted with sources to justify this literal comparison. There can, however, be no doubting the value of the study regarded as a whole, and it may be warmly commended to English students of banking history.

J. SYKES

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Government Ownership and Operation of Railroads. By WALTER M. W. SPLAWN. (New York: The Macmillan Company. 1928. Pp. viii + 478. Index. 21s.)

To undertake a study, however abridged, of the world's railway system requires courage. When to this is added an attempt at weighing the advantages of State ownership or operation of this type of public utility against company ownership and operation, the task is indeed a very formidable one. One gathers from the preface that without the aid of the Laura Spellman Rockefeller Foundation the task would not have been embarked upon, and one may hazard the guess that without the Library of the Bureau of Railway Economics at Washington, to which the author pays high tribute, it could not have been brought to successful fruition.

Professor Splawn has played an important part in the sphere of Government relationship with railroads and other public utilities in the South-Western States, and he is frank in calling attention to the shortcomings which any study of the type this book exemplifies necessarily must contain. Nevertheless, the author is to be congratulated upon their relative infrequency, and little apology is required for the lack of full statistical data concerning the railway systems of such countries as Bulgaria, parts of China, and Luxembourg.

The author has divided his work into two main sections, the earlier two-thirds of the book dealing with the available information and past history of the railway systems of Europe, Asia, South America, Central America, Africa, India, Australia and Canada, with a special chapter devoted to the railways of Great Britain. The last third of the book commences with a chapter entitled "What Does Foreign Experience Indicate?," then proceeds to deal almost exclusively with the past history of state ownership and construction of public utilities in the United States, and the possible effects of Government railway ownership if adopted by Congress as definite national policy. An excellent chapter deals with the war-time period of Government ownership of railways in the United States, which was terminated by the Transportation Act of 1920. Whilst it is the final portion of the book which will be of greatest interest to economists, it is upon the data contained in the earlier chapters that Professor Splawn's conclusions have been primarily based, although he is under no delusion as to the number of difficulties which surround one who attempts to make comparison between countries where traditions

vary fundamentally, national outlook differs widely, and the bases of statistical measurement may be far from similar.

Commencing with the " Small Countries of Western Europe " one finds throughout the earlier portion of the book a remarkable collection of statistical tables, from which important data may be derived concerning the capitalisation per mile, the mileage operated, and the average revenue per passenger-mile and ton-mile. Bearing in mind the causes for variation, such figures are of considerable value, though they must necessarily change to an important extent from year to year, and the annual reports from which they are derived are only available many months after the year to which they apply. Professor Splawn might well have pointed out that in the case of Government-owned lines this lag far transcends that of company-owned systems. The accounts of France, Germany and Italy are perhaps the most striking ones in the European sphere, while Argentina, in the South American section, followed later by South Africa and India, present a clear and concise picture in comparatively few words of the difficulties facing a State in the construction and administration of a large railway system.

The author's discussion of the problems connected with the causes which led to the formation of the Canadian National Railways is possibly the most brilliant study contained in the book, although the analysis of Government railroad ownership during 1918–1920 in his own country is evidence of a remarkable insight into a period the adequate description of which has baffled many economists.

One cannot quite agree with the author in his comparison between the railways of Holland and Belgium, for the latter, unlike the former, is primarily industrial, and its prosperity in recent years has been largely due to the efficiency of its railway organisation, whose present progress is one of the finest tributes to the benefits derived from separation of Government and railway finance. Similarly one is surprised that electrification in Switzerland is dismissed in one paragraph. The electrification of that country and its railways was a definite national policy, and stands out as a formidable example of the benefits of State ownership and operation. Again, the author is not quite accurate in his statement as to taxes on railway passenger travel in Great Britain, while it is incorrect to say that Spain " is introducing the standard gauge for all lines." With economics effected of over £6,000,000 last year compared with 1927, it does not seem quite accurate to state that " It appears that consolidation of railroads in England

has failed to produce economies," though it is certain that "The benefits promised have not been realised." It is only fair to add that Professor Splawn had written his book before our 1928 accounts were made public, but few will agree with his dictum that in 1927 "Much of the falling off in passenger business was due to passing of dividends or curtailing dividends during 1926." Loss of national purchasing power and road competition would have been a somewhat better phraseology.

Lastly, one might have expected that the chaotic state of railway finance in Austria and certain other continental countries would have been connected with the temporary luxurious policy of inflation indulged in by those nations. Yet all these are in reality minor points which do not materially detract from a most valuable contribution to the study of European railway finance, and tribute is due to the author for the admirable way in which he has contrived to include "multum in parvo." Whether one turns to Tunis, Madagascar, or Paraguay there is to be found a most useful outline of railway progress, and the discussion of the Indian position is of greater value by reason of its equity and freedom from bias.

As with other unbiased students of the relationship between the railways and the State, Professor Splawn, like the late Sir William Acworth, from whom he quotes liberally, comes to the conclusion that the dangers of State ownership are in reality greater than any to be feared from well-regulated company ownership or operation by lease. He has drawn with commendable adroitness the picture of comparative efficiency of the French company-owned lines with their State-owned neighbour, and he might have stressed the point that the present success of the Canadian National and German Railway Companies, the two largest railways in the world, is in part resultant from being placed under executives trained in company management and both frank to acknowledge that the efficiency of their systems is proportionate to their divorce from national finance and political control.

The book concludes with a discussion of the possible advantages of Government ownership in the United States, and it is noteworthy that almost all the advantages are those which could also be derived from consolidation, though it is admitted that "thirty-three existing systems do more than ninety per cent. of the business" and "Consolidation has gone forward to where there is not much more to be realised from possible economies of unification."

This book will prove of great value as a source of reference,

but to those keenly interested in Government policy it can be heartily recommended as a means of profitable study, and most readers will agree that the "United States cannot look to foreign experience to guide them in shaping their policies with reference to ownership and management of railroads."

Typographical errors are few, but it is unusual to find misplaced lines in products of the house of Macmillan, and one could wish that the pages were evenly cut, though the author's excellent index makes up for these slight short-comings.

C. E. R. SHERRINGTON

Railroad Regulation since 1920. By D. PHILIP LOCKLIN, Ph.D. (A. W. Shaw Company. Pp. vi + 211.)

SOME day somebody will write a book on the economic consequences of our Railways Act, 1921, and there will be an interesting story to tell. In the United States their corresponding Transportation Act, passed one year earlier, has already undergone vigorous review in quite a number of publications despite the fact that all the provisions have not yet been completely carried out. It is indeed early to expect anything critical which may be called standard, because so much is still based on probable rather than past experience, yet there is value in tracing the course of events which have already taken place, and this is the intention of Mr. Locklin's small book. It is true, on the one hand, that one cannot look for much original criticism or the revelation of new points of view in it, since the aim, broadly speaking, has been merely to take certain of the major regulative provisions of the Act and follow their respective developments during the years 1920–7. On the other, the accepted and well-digested arguments for and against certain controversial courses of action have been summarised in the endeavour to present the student with perspective on the questions at issue, for it is as a text-book for elementary courses in railway transportation that the book is designed. In fact, herein lies its virtues as well as its vices. One can imagine the various chapters as separate lectures, in each of which the attempt is made to collect the scattered material on its subject-matter in such a way as to save the harassed student the time and effort which would be spent (not unprofitably, maybe) in browsing among official reports and other publications. The author would claim little more for them. The result is a very useful descriptive guide to

the labyrinths of regulation since 1920, which fulfils its purpose, however limited that purpose may be.

C. D. CAMPBELL

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Factory Legislation and its Administration. By H. A. MESS, B.A. (P. S. King & Son, Ltd. 1926. Pp. 228. 12*s.* 6*d.*)

THE period dealt with in this book, 1891–1924, is the period of elaboration and detailed application of the principles of health and safety so hardly won in the preceding period. Mr. Mess is a competent guide through the tangled mass of piecemeal legislation which has resulted, and he provides us also with a concise summary of the present position and of the directions in which further legislation is most urgently required.

So far as industrial conditions are concerned the period is one of considerable improvement, of which the Factory Acts themselves are as much an effect as a cause. The greatest advance actually due to the Acts is in the admittedly unhealthy trades, and here much remains still to be done, particularly as regards accidents. "This is, of all that is written in this book, that which needs to be stressed most" (p. 215). This being so, it is surprising that the evidence and statistics given on this important subject are not more adequate and detailed. We have to accept more or less in faith the statement that if "appropriate steps" were taken the number of accidents could be reduced by at least a third in a very few years.

Mr. Mess is of the opinion that in the sphere of factory legislation the establishment of the International Labour Organisation is potentially the most important happening of the years 1891–1924. It is, of course, becoming increasingly reprehensible even to seem to question such a sentiment. Nevertheless it has at least the appearance of exalting the form above the spirit and of confusing the effect with the cause. It is also not very consistent with Mr. Mess's general view of factory legislation policy and progress. On p. 194 it is stated, "the sensible method of advance will doubtless be in the future as in the past, to try to bring conditions in the inferior works up to the level of conditions in the better works." The most potent factor operating on conditions in the better works which has come to light in the period is not the establishment of the I.L.O., but the recognition in fact of the economic value of the human element in industry

and the endeavour by scientific methods to make the most of it. Then, as regards the precise nature of new legislation, Mr. Mess urges that we should contemplate general legislation based on scientifically determined standards at least as regards warmth, light, ventilation and cleanliness, which could be applied to all places of work, instead of continuing to build up new legislation by the method of specific enumeration (p. 214). This is admittedly the ideal and will become practicable, because in the better works such scientifically determined standards are already being sought for and increasingly applied. The new conception of management thus, it would seem, is both actually and potentially the most important fact of the period for the future of factory legislation. The I.L.O. will doubtless help to level up standards and remove some of the fears of unequal competition which have delayed legislation in the past, but this bogy is to a great extent already laid, since, in Mr. Mess's own words, "That good conditions are a sound business proposition has been, broadly speaking, established" (p. 192).

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Factory Organisation. By C. H. NORTHCOTT, O. SHELDON, J. W. WARDROPPER and L. URWICK. (Pitman & Sons, Ltd. Pp. 252. 7*s.* 6*d.*)

THIS volume of the Pitman Economic Series represents a very successful attempt to present a general survey of the more important aspects and the more advanced practices of modern factory management, in a way serviceable alike to the practical business man and to the student of economics. Although the book consists of a number of essays by different writers, it holds remarkably well together as a consistent whole, both in form and in outlook. This satisfactory result is no doubt fundamentally partly due to the fact that the writers "have taken up work in the same factory and are engaged in the management of some of its principal functions" (p. viii). Each essay represents a scientific analysis of actual practice known to the writer, and the usual pitfalls which bestrew the path of this type of work, such as counsels of perfection, inclusion of unnecessary detail and overlapping of treatment, have in the main been successfully avoided. Mr. Sheldon's essay on the Organisation of Business Control and Dr. Northcott's on the Principles and Practice of Industrial Relations deal with the wider aspects of organisation, while Mr. Wardropper's essays on the Organisation of Production and on Records and Costing, and Mr. Urwick's on Marketing

and Advertising and on Selling and Transport are necessarily more detailed and technical. The main impression left on the mind of the reader by all the essays is, however, the same, namely, that of the importance of the human factor in industry. In his analysis of the nature of organisation in Chapter II, Mr. Sheldon says it is " a compound of duties to be performed and persons appointed to perform them," and then later: "Efficiency in organisation is indeed to carry out the most enlightened labour policy." The other essays give ample illustration of the truth of this outlook. To anyone, therefore, who wishes to have a clear and practical idea of what the newer conception of management implies or what rationalisation may mean apart from the aspect of monopoly or competition, this book can be unhesitatingly recommended. Dr. Northcott's essay on Industrial Relations is deserving of special attention in this connection, and all the more so that in the summary of the final report of the Committee on Industry and Trade it is recognised that if scientifically equipped and managed enterprises are to be operated with a hitherto unknown intensity, the whole range of questions generally classed as " welfare " will assume a much-increased importance; and that the changed conditions will make a much higher demand on employers and employed for mutual co-operation than has hitherto been customary in British industry. Dr. Northcott's clear and impartial way of showing that forms of rationalisation which do not recognise that the ethical and social standards of the workers are positive factors in economic life will remain essentially unreasonable as regards the mass of producers, and irrational in their effects, is therefore specially useful and opportune. If one might add at all to the very valuable guidance afforded by this essay to the employer, it would be by insisting more explicitly on the necessity for the cultivation of relations between the management of a firm and the trade-union officials concerned, not only on account of the beneficial effect which this would have on industrial relations in general, but on wage systems in particular. No wage system, piece-work or profit-sharing, etc. is necessarily banned by trade unions. They are only banned in so far as, under prevailing conditions, they weaken the Union's control over the standard rate. Granted then that no wage system is either economically or ethically satisfactory which does not allow for reward to superior effort, closer co-operation with the trade union to make this possible must not only be contemplated but emphatically urged.

On the more technical aspects of factory organisation the unqualified reviewer must hesitate to speak, and nowhere more so perhaps than on the problem of advertising, where apparently no great reliance can be placed on the guidance of supposed common-sense. If, however, it be really necessary seriously to warn the advertiser that in certain cases the "habit instinct" of consumers may be overcome by the "parental instinct," as in the case of baby food, when "the consumer is very ready to try a change should the child show signs of sickness" (p. 183), then the psychology of the advertiser should receive more attention than it does.

MARY T. RANKIN

University of Edinburgh.

Hospitals and the State. By R. WESTLAND CHALMERS. (London: Bale, Sons and Danielsson. 1928. Pp. ix + 143. 6*s*.)

DR. CHALMERS' volume, which is described in its sub-title as "a popular study of the principles and practice of charity," is one of those books regarding which the reader rather querulously feels that he was led to expect something different. Almost the whole of the slender volume is, in fact, an easy-going narrative, drawn from economic history, beginning with the Roman *hospes* and the *hospitium* of the English monasteries, and it should rather be regarded as a history of philanthropy and of State action in regard to the care and the cure of the sick and the relief of the poor. The last two chapters make a sudden transition to present-day problems of medical politics. Dr. Chalmers' main theme is that in all good works the State has always been "obliged to step in and assist even the combined efforts of individuals to achieve what is desired." In practice this is a plea for the State hospital. The epilogue touches on questions of politics, and finds that "man has laboriously constructed the State as the organised will and conscience of his society."

ALEXANDER GRAY

Women and the Labor Movement. By ALICE HENRY. (New York: The Macmillan Co. 1927. Pp. xvii + 241. 6*s*.)

MISS HENRY has attempted a great deal and has produced a volume which is interesting although somewhat diffuse and uneven in merit. She describes the entry of women into the machine industry of the United States, and, a long way after, their entry into the Trade Union movement. The early history of women's Trade Union activity is little more than an enumera-

tion of disconnected strikes: organisations sprang up to support a strike, and faded out of existence as soon as the battle was lost or won. It is interesting to note the co-operation of the Women's Suffrage Movement with the Women's Trade Unions, and the influence exerted by the middle-class Women's Trade Union League, founded on the British model.

The description given of the present position in the women's Unions, and in the Unions admitting women to membership, would have been more valuable if there had been some indication of the proportion which the figures quoted bear to the total numbers engaged in the industry. The women gainfully employed in 1920 numbered, we are told, over 8½ millions. There are apparently no figures to show how many there were in the Trade Unions. The American Federation of Labour does not know, and Miss Henry can hardly be blamed for not knowing. But there must be records of the numbers in each occupation, and when we are told that 6,000 women belong to the Organised Bookbinders, 20,000 to the Boot and Shoe Operatives' Union, 17,000 to the Railway and Steamship Clerks' Union, etc., we feel that the information would have gained in interest if we had been allowed to know how many women these industries employ.

The industrial problem of America is complicated by the immigration factor and the negro question. Nevertheless, it is something of a shock to the British reader to hear that only ten States have a legalised eight-hour day for women, that six have no regulations on the subject of hours at all, and that only thirteen prescribe a weekly rest day. Even this must be discounted, since no one State "has all the legal protection on its statute books," though the practice of many firms is far ahead of legal requirements. It is a pity that the information given in the chapter on Industrial Legislation is not amplified. We are told that fourteen States have Minimum Wage laws, the decrees ranging from \$8·50 in one industry in 1915 to \$18 awarded in another in 1921. But only three concrete instances are quoted, and the two typical workgirls' budgets, set out in detail, show the amounts allowed for clothes and for incidental expenses, but not for food or rent. Again, while all Americans are doubtless familiar with existing practice as regards "Mothers' Pensions," the British reader is intrigued and tantalised when he is told that forty-one States legislate on this subject, and practically nothing else about it.

A chapter is devoted to the Women's Bureau, which was established in 1920 as a permanent branch of the Department of Labour. The Bureau has for its object the formulating of

"Standards and policies which shall promote the welfare of wage-earning women, improve their working conditions and advance their opportunities for profitable employment." Its services have already proved invaluable, but its scope is limited by the fact that industrial legislation is the exclusive prerogative of the separate States, and that a Federal institution has no power of administration. The concluding chapters are devoted to a description of the changes introduced by war conditions, of the special problems of the negro woman, and of the formation of the International Federation of Working Women.

While the book is readable, the arrangement of the subject-matter is not the best. The digressions into the policy and legislative enactments of other countries are somewhat confusing, and the mixture of statements of opinion and ideals with descriptions of fact detracts from the value of what is intended to be a scientific survey. And why is a book written in 1923 not published until 1927? In view of the rate of American progress it is not too much to assume that many of the conditions here described must already be matters of past history.

H. Reynard

The Human Factor in Industry and Politics. By Alfred Hook. (London: P. S. King & Son. Pp. xi + 211. 8*s*. 6*d*.)

The last books by Mr. Hook reviewed in these pages dealt with problems of distribution: in the present volume he goes deeper and seeks to isolate the human factor in our economic and political affairs. It is a little unfortunate that, before attacking the major problems, Mr. Hook should have found it necessary to devote thirteen chapters, nearly one-half of the book, to a discussion of the first principles of Physics, Biology and Psychology. All that he has to say about the fundamental principles of human nature, the capacity to react to external stimuli, the capacity or incapacity to think and to reason, might well have been compressed into a single chapter. The line of argument is clear enough, but the reader can hardly refrain from sighing: "*Avocat—ah! passons au déluge.*"

The great mass of mankind, according to Mr. Hook, can think in a rudimentary fashion, but sustained thought is quite beyond them, and "an elaborate train of thought such as an intricate economic argument has no effect on them at all." Hence in Education, secondary as well as primary, a larger place should be given to practical as distinct from purely mental training,

since the majority of the pupils are not capable of profiting from the latter. Developing his theme further, Mr. Hook holds that "man is the victim of a nature for which he is in no sense personally responsible." He is what external forces have made him: his conduct depends on his mental furniture, part of which is hereditary and part forced on him by his environment. Starting from this hypothesis it is easy to see how enmity must arise between employer and employed, neither of whom is "capable of thinking" the facts of the other side. Employers *can* think only in terms of output and profit, workmen only in terms of wages and hours. Each is the victim of the psychology of its own crowd. The same facts meet us in the world of politics where quarter is never given to an opponent. In industry and politics alike we begin with indifference to the other side, then passions are inflamed and open warfare is the result.

For Labour's attitude of suspicion and dislike to the system of private enterprise, Mr. Hook has two practical remedies to offer. He suggests that employers should restrict their drawing from the business to a reasonable remuneration and a fixed rate of interest, and that the balance of profit should be kept as a Fund to maintain standard dividends and wages in lean years. The scheme, as Mr. Hook must know, is not new and has actually been put into practice by a few public-spirited employers. He regretfully admits that human nature is against its general adoption, but a new kind of education, directed towards the establishment of new standards, would help in the right direction. Managerial salaries, apart from business profits, are too high and incite the jealousy of the wage-earner. A second experiment suggested is the formation of "labour groups," which would contract to supply labour to employers and distribute receipts on a basis to be settled by themselves. These expedients appear meagre enough, but Mr. Hook is not concerned to find immediate remedies. His aim is to explain why we have become what we are, and to preach honesty, patience and toleration. On Democracy and Dictatorships, on piece-work, co-partnership and other problems, he has many acute observations to offer. But the substance of his argument is an appeal for mutual toleration in human relations, as a first step towards a change of heart, an appeal addressed on the title-page to the Churches, but intended obviously for all thoughtful persons.

H. REYNARD

The Psychology of Socialism. By HENRY DE MAN. Translated by EDEN and CEDAR PAUL. (London: Allen and Unwin. Pp. 509. 16*s.*)

The Modern Case for Socialism. By A. W. HUMPHREY. (London: Allen and Unwin. 1928. Pp. 272. 12*s.* 6*d.*)

MR. HENRY DE MAN'S book is, in his own words, "a fragment of spiritual autobiography." It is a revised statement of faith by one who, while constantly speaking of Marx with respect, has nevertheless been forced to realise that for the Socialist movement Marxism, whatever it may have been in the past, is now an encumbrance, something which neither interprets the times nor corresponds with the aspirations of the times. Mr. de Man is careful to distinguish between Marx and Marxism. Marxism, which is what the Labour movement has made of the theoretical system of Marx, is alone what matters, and he shows a scarcely veiled contempt for those who busy themselves with textual comment and criticism, and who place reliance on quotations from the master. As he says in one place: "Vulgar Marxism is a living error; pure Marxism is a dead truth" (p. 417), and it is clear throughout that Mr. de Man has no interest in the dissection of a dead truth. His volume therefore is scarcely in any sense a criticism of Marx; it is a refutation of much that Marxism has come to mean, above all of the false assumptions of Marxism regarding the nature and working of men's minds. The reasoning and the logic of Marx have often enough been refuted; it is doubtful whether any refutation, however effective, will ever make any difference; for though Marx purported to rest his case on the invincible power of reason, his influence is really based on the fact that he represents certain things which are felt, and the degree in which these things are felt is neither a matter of reasoning nor does it depend on a comprehension of Marxian doctrine. Marx, in short, is a collection of Sorelian myths; and with a myth, as with a ghost, one may not reason. Marx may in time become for all, as he has become for many, an infinite bore; but no refutation, however cogent, will ever detach from him the humblest of his followers.

Mr. de Man's criticism of Marx is therefore peculiar in that Marx is scarcely, if at all, quoted in his pages. Fundamentally—if the word may be used where so many phases of the problem are discussed—fundamentally Mr. de Man's criticism is that with Marx and in Marxism, Socialism is too much a matter of the intellect. "For Marx, knowledge, awareness, was the primary

determinant, the class will was the outcome of class consciousness" (p. 29). But Mr. de Man has little difficulty in showing that class consciousness was born out of the class war, and the class war itself was the outcome of a feeling of class resentment (p. 31). The roots of Socialism, in short, are not in the intellectual field; it is not the product of capitalism. Class interests do not explain everything; indeed in the domestic field, as elsewhere in international matters, Mr. de Man realises that working-class solidarity is but a phrase, empty of significance. There is often conflict of interest between different classes of workers within a country, as likewise there may be conflicting interests between the workers of different countries. Solidarity, when it arises, is a manifestation of the community instinct—an instinct which is not born of knowledge (p. 131). The springs of Socialism, inextricably entangled with an inferiority complex, are many; the wage question is only one, and not a predominating factor.

If Marxism misinterprets the springs of Socialism, so also it unduly simplifies the problem by its simple dichotomy of the population into employers and employed, into bourgeois and proletariat. Mr. de Man's criticism on this point, involving a plea for the so-called "intellectuals," is not merely of interest in itself; his argument here is of importance because it leads to a repudiation of one of the fundamental points in Marxism. The identification of the State with the rule of the Capitalist class (or of any class) is dismissed as a chimæra (p. 199). The State is run by the intellectuals, who are neither capitalists nor proletarians. If Mr. de Man is right in objecting to the simplified division of the population into classes and the identification of the State with one of these, he perhaps overstates his case when (with Aristotle) he adds that "Politics are not an occupation of leisure hours; they are a specialist's job."

Of the innumerable other points of great interest in Mr. de Man's treatise only a few can be indicated. Not merely does he attack the Marxian doctrine of the State, but he finds in the present-day State an institution of the utmost importance to Socialism, so that "to-day, in all the countries of Europe, the socialists are the true buttresses of the State" (p. 311). Nor is it merely the State that Marxism misjudges; the whole idea of nationalism has been misunderstood, and it is owing to false assumptions on this point that Marxism has become an obstacle in the way of international socialism. If anything, one might be tempted to suggest that Mr. de Man, in reaction, rather tends to overstress the importance of nationality.

Lastly, in a notice which must ignore the greater part of a lengthy book, it is implicit throughout the whole of Mr. de Man's work that Marxism and traditional Socialism have erred in concentrating too exclusively on material things and on distant ends. He himself is undisguisedly reformist; he professes to attach more value to the building of a new sewer in a working class quarter than to a new theory of the class struggle (p. 468). He distrusts all Utopias. And in pushing beyond Marxism, Socialism becomes for Mr. de Man something almost entirely ethical and spiritual, something infused with the spirit of the Sermon on the Mount. Socialism is a passion, not a cognition; its aim is to make men better and happier now. More tersely, its golden rule should be: "Make yourself better, others happier" (p. 496). Certainly the atmosphere of "religious fervour" which Mr. de Man invokes is a long way from traditional Marxism. It would be flattery to say that Mr. de Man's book is interesting throughout; it would indeed have gained considerably by compression of its five hundred substantial pages. But it is a book of great sincerity and courage, and its penetrating study of Marxism in the light of to-day is of great value.

Mr. Humphrey's statement of the modern case for Socialism is chiefly of interest because it exemplifies the kind of thing from which Mr. de Man would fain deliver us. It opens with an orthodox and somewhat superficial statement of the main points of Marxian doctrine. Here is the usual arid statement of the theory of value and surplus-value, of the Iron Law of Wages and of the Class Struggle. Mr. Humphrey's indictment of Capitalism is at times naïve. "One cannot conquer in the commercial field any more than in the military field unless there is someone to be conquered. . . . For everyone who 'gets on' someone 'gets out'" (p. 64). So far from being the modern "case for Socialism," this is pure Louis Blanc, and it might well be left undisturbed in his pages. Mr. Humphrey is, however, representative of one type of modern socialism in the bitterness which masters him when this argument leads him to speak of Bankers. He is torn between a desire to represent them as of no consequence ("After all, they are only money-lenders" p. 152), and an equally strong desire to paint them as the villains of the piece. "In terms of human existence they determine whether the queues at the Employment Exchanges shall be long or short . . . whether children shall be well fed or ill fed" (p. 144). Mr. Humphrey's argument not infrequently reflects a certain confusion of mind. It is true doubtless that "every bankruptcy is a failure of private enter-

prise," but it is an irrelevant truth, since no one has ever suggested that under capitalism any fool can make money. Indeed the anti-socialist would argue that the possibility of individual failure is a necessary safeguard, and that in a system of socialised industries, reclining ultimately on the rates, what is lacking is precisely some such automatic check on inefficiency. The volume ends with an orthodox exposition of the principles of Guild Socialism—which "at present holds the field"—an exposition which might have been written ten years ago.

Alexander Gray

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Citizenship in the Industrial World. By G. A. Johnston, M.A., D.Phil. (London: Longmans, Green & Co. 1928. Pp. viii + 297. 12*s*. 6*d*.)

This book is rather disappointing. From the Preface and one or two passages stating the author's object and method of treating the subject of citizenship in the industrial world, the reader would expect to find something new and original. But his expectation will not be realised. Dr. Johnston rightly says that Plato's and Aristotle's views of citizenship are inadequate, and that "for dealing with the complex relationship of citizenship in modern industrial life, Greek thought gives little guidance." He points out that in the modern world good citizenship involves not only an attitude to the State, but also a complicated system of relations between the individual and a variety of different associations "Good citizenship is the right ordering of all our loyalties." But this is not a new conception of citizenship. Nor does the author develop the wider view involved in his definition with the originality which might be expected, for in his Preface he says, "this book attempts to deal with the problem of citizenship by a new method and from a new standpoint."

Chapter I, entitled "Introductory: what is Citizenship?" is followed by four chapters dealing with the Modern Industrial Order, the Citizen as Producer, the Citizen as Consumer, and the Citizen and the State. Chapter II is mainly descriptive of what the author calls the modern industrial order, or, in other words, a description of certain aspects of modern industry. The modern industrial order is defined much too narrowly as "the system under which commodities are produced by labour specialised and organised to operate machinery on a large scale." This chapter, together with Chapters III and IV, contain a vast amount of

information in the aggregate, but it is spread over such an enormous number of subjects that it is often inadequate in relation to the individual topics treated. For example, Chapter III, which occupies 105 pages, attempts to deal with the following subjects: The Problem of Industrial Production; Waste in Industry; The "Rationalisation" of Industry; Industrial Fatigue; Industrial Accidents; Sickness; Maladjustment; Labour Turnover; Labour Disputes; Unemployment; Hours of Work; Organisation and Management; Industrial Relations. Chapter IV also discusses a long list. Chapter V contains a somewhat elementary discussion of such subjects as the nature and functions of the State, representative government, and other questions of political theory.

The writing of the book must have involved the author in a large amount of reading, and the arrangement of the facts he has included must have been a tedious operation. The information given is as a rule accurate and clearly stated, though it is not always up to date. For instance, it would have been possible to get much more recent figures as to the growth of the Workers' Educational Association than those of 1920. Naturally, owing to the size of the book and the number of the subjects, they are never exhaustively handled. The reader who wants to know something about unemployment, hours of labour, wages, the distribution of wealth, for example, will be able to discover that in each case there are problems, and perhaps the bare outlines of the problems themselves. The book is in places very elementary, and the greater part is little more than a compilation of well-known facts; it would have made quite a useful book of reference if these had been placed in alphabetical order.

Dr. Johnston takes a more optimistic view of the working of the "modern industrial order" than would be generally accepted. For instance, not everyone would agree with the following: "An industrial magnate, whom overwork renders incapable of enjoying even the simplest pleasures of life, is as much a slave of the industrial order as the most wretched sweated worker." I have noticed an unfortunate slip in the quotation on p. 40 from Professor J. H. Jones's *Social Economics*, where the last word should be "increased" instead of "decreased."

H. SANDERSON FURNISS

Labor Management. By GORDON S. WATKINS, Ph.D. (Shaw Company: Chicago and New York. 1928. Pp. xvi + 726.)

BY labour management Professor Watkins means what may be described as the human side of industry. "The whole discussion," he writes, "necessarily centers around the human equation in the scheme of industrial administration." He has a great deal to say about personnel procedure, personnel administration, and what he calls personnel science. This is something more than scientific management, and it is not identical with welfare work. Nevertheless, the book contains a good deal of information which is by no means new with regard to both scientific management and welfare work. However, the author lays no claim to originality, and in one place describes his book as a résumé. It has taken him ten years to write, and his ideas as to the scope of his subject seem to have grown as he proceeded, for his interpretation of "the science of human relations" is so wide that it includes almost every conceivable relation of employers and employed.

The book is divided into eight parts, but Part VI occupies over four hundred out of the seven hundred pages. This part, entitled "Problems and Methods of Maintenance" (by which is meant the maintaining of supplies of labour by individual firms), includes a great variety of subjects: Labor Turnover; Absenteeism, Tardiness and Discipline; Creating Interest in the Job and the Enterprise; Transfer, Promotion and Discharge; Wage Systems and Financial Incentives; The Worker's Participation in Industrial Ownership; The Education and Training of Employees; Education and Training of Executives; The Plant Magazine; Safeguarding the Worker's Health; Industrial Accidents and their Prevention; Hours of Labor in Relation to Health and Output; The Physical Environment of Work; Company Housing and Community Improvement; Regularizing Employment; Miscellaneous Personnel Services. The treatment of these topics is almost entirely descriptive, and there are, of course, some interesting facts to be gleaned with regard to American industrial conditions. The author evidently possesses a wide knowledge of industrial problems, and a remarkable power of stating clearly and fairly the point of view of both employers and workmen. Part II, "The Historical Background," consists of a sketch too slight to be of much use to students unless they already have sufficient historical background to make it unnecessary.

The book should be valuable to those who want a mass of information about American industry in one big volume into

which they can dig. Each chapter has a fairly adequate bibliography, and there is a good index.

H. SANDERSON FURNISS

Indian Economics. By G. B. JATHAR, M.A., I.E.S., and S. G. BERI, M.A. Vol. I, 1928, pp. xii + 497, Rs. 4.8; Vol. II, 1929, pp. iv + 623, Rs. 5.4. (Bombay: D. B. Taraporevala Sons & Co.)

TEACHERS and students of Indian Universities will gladly welcome this publication as the best general treatise on its subject hitherto published. It has the advantage over its predecessors of being up-to-date; and, in view of the rapid changes in recent years of industrial conditions in India, and the more strenuous efforts recently made to inquire into and record the actual state of industrial life, this advantage is very great. The authors are also to be congratulated on the merits of their achievement. Their plan has been to discuss in a series the most outstanding economic problems, to set forth the pertinent facts as far as the information is available from authoritative sources, to summarise the arguments for the different views that have been advocated in relation to each problem, and finally to pronounce their own opinion. In doing this they have shown good judgment in the selection of topics, candour and impartiality, to an exceptional degree, in presenting the opinions of other thinkers, and much sound common-sense in their final verdicts. The subjects dealt with include agriculture, land tenure, irrigation, co-operation, rural industries, urban industries, the tariff, labour problems, transport, foreign and internal trade, currency, banking, public finance, and problems of unemployment; and, on each of these, the book provides a handy store of information.

It is regrettable that the authors find themselves obliged to apologise, and with reason, for an excessive number of misprints. But all who have attempted proof correcting of copy set up by Indian compositors ignorant of English will sympathise with them.

G. SLATER

Bantu, Boer, and Briton : the Making of the South African Native Problem. By W. M. MACMILLAN. (London: Faber & Gwyer. 1929. Pp. xii + 328. 21*s.*)

White Capital and Coloured Labour. By LORD OLIVIER. (London: The Hogarth Press. 1929. Pp. 348. 12*s.* 6*d.*)

THE delvers in the records of early South African history are not open to the charge of neglecting any available sources, and

one cannot but admire the public spirit which has prompted so much arduous effort in this field, and not less the continuous response of the reading public which, one may hope, has duly rewarded that effort. Professor Macmillan's book is a valuable addition to the larger and more elaborate histories of writers like Cory and Theal, and to his own work, *The Cape Colour Question* (1927). He follows again the track of that excellent and humane pioneer, the Rev. Dr. Philip of the London Missionary Society, of whose reputation and work the book may be regarded as a triumphant vindication. Generously he calls his hero "the best South African of them all."

The narrative covers a period of some thirty years—roundly from 1820 to the middle of the century—during which the opportunity of putting the native problem on a just and statesmanlike basis came repeatedly to the colonists and the home Government. Philip occupies a leading place in the canvas throughout, first as the trusted adviser, but later as the candid critic of Governor D'Urban, and also, through his Society, as promptor to the Colonial Office and the Exeter Hall group in London. Philip differed from the majority of those around him in believing that the native was really a human being, and as such possessed rights which his white neighbours would only disregard and override at their peril. Perhaps he was apt at times to idealise the native unduly. We find him writing, after one of his early journeys in Kafirland, "The Caffres are not the savages we read about in books. They are intelligent and are not afraid of conversing with strangers; they are, moreover, well acquainted with their own history, and study mankind, if not books; at ten years old they are politicians!" Such a generalisation would be an overstatement even to-day, but at least it was a safer line of approach to the native problem than the prevalent conception of natives as soulless niggers. To secure for them justice, education, and an ample assignment of land was the work of Philip's life, and he stands out in these pages as a strong, brave man of unselfish character, of far-seeing mind, statesmanlike judgment, and of the highest ideals. He became specially prominent both at the Cape and, less publicly, in official and political circles in London, when early in the 'thirties European and Bantu came at last into collision, and the necessity of readjusting their relationships had to be faced by the Colonial Office.

He was one of the few men who had grasped the fact—at which white South Africa persists in boggling even to-day, a hundred years later—that the crux of the problem was the land question.

Let the natives be guaranteed a sufficiency of land, and he was convinced that a just administration would find them peaceable, tractable, and contented. But the land—or all the best of it—was just what the colonists wanted for themselves, and were often but little scrupulous in acquiring. That was not the natives' only grievance, however, for they suffered cruelly from the "commando" system. Under that system, if farm stock belonging to whites disappeared, native theft was taken for granted and, if the *spoor* could be followed to a kraal, prompt restitution, usually far in excess of the loss suffered, was enforced, though often it proved that the missing animals had not been taken away at all.

An exasperating sense of wrong, for which they saw no remedy, drove the Bantu to the outbreak of 1834. The storm clouds had long been gathering, yet the dilatory, self-satisfied, and ineffectual governor, D'Urban, told his Government—and presumably believed—that it had come like a bolt from the blue, and that neither traders nor missionaries had foreseen it. As the author says, "The misinterpretation of events that preceded the war of December, 1834, may be attributed to the almost congenital blindness of many South Africans to the possibility that 'Kafirs' can have grievances, if misguided Europeans (*i.e.* missionaries) are not so foolish as to draw their attention to them."

Convinced that the Bantu suffered from a strong overdose of original sin—in a proclamation he called them "irreclaimable savages"—D'Urban now followed a policy of outright extermination. He instructed Colonel Hare (September, 1835) to "Keep the country well scoured and shoot all Kafirs found in it," while to another officer he wrote, "Keep the district clear. You have still the right to shoot them; this is an absolute necessity." His plan was to annex Kafirland, evict the disaffected natives, and settle whites on the disappropriated land; for, as he wrote, "large tracts" were to be "left vacant for the occupation *and speculations* of Europeans." Certainly the punishment meted to the Bantu did not err on the side of clemency. "Our losses," D'Urban reported to the Colonial Secretary, "were under 1,000, theirs over 4,000 of their warriors. There have been taken from them also—besides the conquest and alienation of their country—about 60,000 head of cattle and almost all their goats; their habitations are everywhere destroyed and their gardens and cornfields laid waste. They have therefore been chastised—not extremely, perhaps, but sufficiently" (*sic*). One wonders what "extremely" would have meant.

One feature of his "settlement" was the creation of native "locations" in contiguity to European communities, an ominous innovation which, as the author writes, "in time converted the fair districts of Kaffraria into a chess-board of black and white areas, and the congested slums which disfigure the 'Cis-Kei' of to-day are the result." He might have said not only the Cis-Kei but the towns of South Africa pretty generally.

Philip protested vigorously against D'Urban's policy of evacuation and repression. He favoured the retention of the country—already called the "province of Queen Adelaide"—convinced that it would be best for the natives, but he wanted these to be allowed to live and develop in their own way as much as possible. He had "always thought it would be a good thing to take the Caffres as subjects under the British Government provided their country is secured to them; but the dispersion of English or Dutch settlers among them in present circumstances is a scheme that cannot succeed."

D'Urban was making history too fast. The home Government was in no mood for adding to colonial liabilities in South Africa or anywhere else. In a devastating despatch of December 26, 1835, after telling D'Urban that the Kafirs had "ample justification" for disaffection, owing to their long-continued ill-treatment, Lord Glenelg repudiated the idea of annexation, "right being on the side of the invaded," and insisted on a policy of clemency. By proclamation of February, 1837, British sovereignty in Kafirland was formally renounced, and a little later the blundering Governor was recalled, greatly to the disgust of the white and particularly the Dutch population.

In later chapters Professor Macmillan tells again the story of the Great Trek of 1834–7, and the resulting annexations to the British Crown, always keeping in view his *leit-motif*—the exposure of the mischievous notion that destiny had decreed that the natives should be for all time the chattels of the white races. Of the Trek he remarks that it "accentuated and perpetuated the dispersal and the isolation of South African life which have made the backwardness of the Back Veld, and in colour policy meant in the end the substantial defeat of the enlightened liberalism that triumphed in the Cape in the emancipation of the Hottentots in 1828 and of the slaves in 1833."

The narrative is carried on to the early 'fifties, when a fateful departure in British colonial policy was inaugurated. Leading statesmen at home had more and more wearied of the colonies as "inordinately expensive" (Earl Grey and Cobden) and "dead

weights" (Disraeli); the doctrine of "safety first" had made its appearance; and even the normal fervour of Exeter Hall had been chilled by the prevailing spirit of utilitarianism and *laissez-faire.* The result was a policy here rightly described as one of "scuttle." The home Government, while genuinely concerned that justice should be done to the natives, wanted that precious boon too cheaply, and it was not so to be had. Rather than pay the price it decided to ease itself of part of the "white man's burden." "No more rights and for heaven's sake no more responsibilities," ran the slogan of the "new course." Whatever the objective justifications for the change of front, the determining motives must be sought less in moral qualms than in expediency. Keeping still faithfully to his brief, the author says of the restoration of the Dutch republics; "The 'abandonment' was in effect the cementing of a defensive alliance of British and Boers against the natives. British recognition of the republics came thus as an act of friendship, making a season of harmonious co-operation between the two white peoples. But this act held all the seeds of the disputes that were yet to tear South Africa to fragments. . . . Thus established, the republics, while learning more and more to cherish their own independence, came little nearer recognising the sovereign virtue of broad human freedom." Eighty years ago Dr. Philip predicted that the native policy pursued by the British Government in South Africa, which meant depriving the natives of land, and giving it to the Europeans, would "end in the Caffres becoming a nation of degraded servants on their own soil." Does the condition of the natives generally to-day belie this forecast?

In his final chapter Professor Macmillan summarises the conclusions to which his researches have led him. Of these the reader may be left to judge the drift from what has been said already. This is a book not to be read merely as history, but to be "marked, learned, and inwardly digested" as moral and parable. The story here so vividly told is pregnant with significance for the present day, and for other parts of the African Continent than the South.

Although devoted to an identical theme, Lord Olivier's book is of an altogether different type, being uncompromisingly controversial in tone, though he might be unwilling to admit it. The volume is a revision and an expansion—chiefly the latter—of opinions published over twenty years ago. All who have followed Lord Olivier's attitude and utterances on the Kenya labour question must respect him as an earnest and sympathetic

advocate of native rights. On questions of native policy he also speaks with exceptional knowledge of actual conditions in various parts of the world. The fact that he approaches these questions from the standpoint of Socialistic theory may explain a tendency to dogmatic statement; yet when the pontifical robes are laid aside, and he speaks as an ordinary non-inspired mortal, he is usually convincing enough. Certainly he wields a vigorous as well as facile pen, but it is a pity that it should be dipped so often in the gall of animus and cynicism.

Although Lord Olivier extends his survey over a very wide field, the greater part of the book deals with African aspects of the native problem, and naturally Kenya is kept well in the foreground. The reputation of Great Britain has not yet recovered from the shock administered to it by the revelation that, though the British Government had appropriated Germany's colonies on the plea that serfdom—veiled by the euphemistic phrase "labour requisitions"—had been practised therein, and though in Tanganyika it was engaged in all sorts of costly window-dressing experiments, designed to persuade the world that true freedom flourishes only or best under the British flag, forced labour in the worst form was not merely being tolerated but approved by British colonial administrators. The consequence is that it is to-day difficult for British humanitarians to open their mouths in condemnation of the wrongs and injustices committed by other nations in their colonial territories; for at once the rejoinder comes pat—keep your moralising for home consumption. That is not to say that this country has a specially bad record, the fact being that even if our Government cannot be said, in a phrase used by Bismarck in much the same connection, to wear an altogether "white waistcoat," the waistcoats of France and Portugal are far more liberally besmirched. Nevertheless, two blacks never yet made one white, and in indicting the native policy associated with Kenya Lord Olivier is on strong grounds, and supported as he is by a large mass of unimpeachable evidence, he makes out a damning case. Chapters 19 and 20, indeed, in which the pros and cons (chiefly the cons) of the forced labour system are considered, are amongst the most arresting in the volume.

As a contribution to public information and practical controversy the chapter (25) on "The Doctrine of Trusteeship," as preached at Geneva but practised genuinely and effectively nowhere, is also very timely. If anyone supposes that the enchanting doctrines of "trusteeship" and "a mission of civilisa-

tion" are going to "work of themselves," so to speak, he will be disillusioned after reading this chapter. Lord Olivier tears into tatters the conception of colonial territories as "estates" which Europeans are entitled to develop and exploit in the interest of their countries' commerce and industry, and with Kenya and South Africa in mind as object lessons, he contends that "unless and until the programme of development, whether public or by private planting and enterprise is considered and regulated from the point of view of the direct interests of the natives and not from the point of view of developing the European Imperial "estate," with merely the excuse of the pretext that indirectly and in the long run the native will benefit, the whole claim of European Powers to be acting as trustees for the natives and the claim of our own Colonial Office to be administering in the interests of natives is conspicuously hypocritical."

Incidentally the author treats with the contempt it deserves the common caricature of the native as a lazy cumberer of the ground except when goaded into effort by poll taxes or coerced, of course for his good, by benign labour ordinances. He quotes a South African representative of "commercial imperialism" as saying, "A good sound system of compulsory labour would do more to raise the nigger in five years than all the millions that have been sunk in missionary efforts for the last fifty." This "born tired" theory of the native labourer has to be squared with the fact that without the exertions of this pitiable drudge of white society the industrial and economic life of tropical and semi-tropical Africa would be paralysed.

The truth is that in this matter the native has much in common with his white brother. He rebels—as far as he can or dare—against compulsion, but what wonder? In the abstract probably most of us have something more than a sneaking sympathy with the native dislike of coercive effort. For it is not the effort that repels us, but the coercion; and human nature is pretty much the same all the world over.

What specially annoys Lord Olivier, however, is the idea of natives being forced to labour in order that they may pay taxes; but here he seems to take too tragic a view of what is admittedly a source of abuse and grievance. Probably most people will agree that direct compulsory labour, even as an incentive to tax-paying, is objectionable; since it is notorious that compulsory tax-paying itself is apt to be deemed irksome without that circuitous stimulus. But doctrinaire argumentation of this kind does not carry us far in practical life. Whether we like or dislike,

his Majesty's Government has to be carried on, and the citizen who accepts the State is bound, grumble as he may, to accept all its consequences, of which one is the tax-collector.

And if, as many Socialist humanitarians wish, native populations were to be left to their primitive selves, to follow their own traditions and bent, and it were to occur to their paramount chiefs to enforce the hateful principle of obligatory labour in worse forms, what would happen? Would the civilised Governments of adjoining territories, disturbed by the resulting disquiet and incursion of unwelcome refugees across their frontiers, have a right to interfere, and if so, why? Inasmuch as the work of civilising native territories costs money, it is reasonable that the natives should bear a strictly tolerable share of the expense, either in labour or coin, and if pressure has to be applied at all it is surely better that it should be applied judiciously and with the least practicable degree of hardship, by public authority that can be brought to book, rather than arbitrarily by native dictators of uncertain intelligence and temper. The coercion of native labourers in the interest of private profit must be differently judged, and one can agree generally with most of what Lord Olivier says on that subject.

Lord Olivier himself does not appear to condemn all compulsory labour out of hand, or he would not so far compromise as to talk of the necessity of putting "some restriction upon the degree and pace of development" of the country or territory needing the stimulus of this admittedly undesirable expedient, a stipulation which is palpably just. Is it not possible, however, to apply a form of quasi-compulsion free from the present objections? Let me carry further the analogy already suggested. Civilised man, living in organised political communities, accepts and obeys more or less readily the rules and restraints which are collectively enacted for the harmonious ordering of the common life. He works, as has been said, not always or perhaps very often for the reason that he loves work of the kind he has to do, but because work cannot be evaded—in effect, if not in theory, it is compulsory. He also pays taxes directly or indirectly—again not always cheerfully, but because so to do is an implicit condition of the political partnership, and to default would not be playing the game. Let the native be brought into a similar "social contract" as a free man; then, while the necessity of working and paying taxes will remain all the same, the irksomeness will be lessened, and the odium disappear, whether the political system be that of a modified capitalism or of a Socialism purged of its grosser

crudities. Where white and black communities live side by side, and a common citizenship is recognised as for the present either impracticable or inexpedient, it should not be beyond the capacity of statesmanship to devise a dual system of government, each community having its separate legislative body, with the appropriate powers and functions, and such reciprocal safeguards as circumstances show to be necessary. Several years ago, before General Hertzog had launched his political and agrarian proposals, in writing on the native problem as I had studied it in the South African Union (*South Africa: People, Places, and Problems*), I suggested this method of approach to the difficult question of segregation, and I am still convinced that a hope, at least, of racial accommodation might be found on some such lines.

These remarks may justify a final criticism of what in my view is most amiss with Lord Olivier's book, thoughtful and thought-provoking though it is. I refer to its far too negative character. His fundamental contention is that the natives shall not be hustled too quickly and too roughly into what we call "civilisation," and that their civilisation shall be of the right kind, and suited to their traditions and needs. That view all right-minded people must share. One could have wished, however, that he had dealt more frankly and fully with the practical questions which it raises; but it is just on the constructive side that he falls short. It is easy to tell people that the way they are going is wrong; it is far more helpful to put them on the right track. This positive assistance Lord Olivier too often withholds. Excelling in criticism as few writers on his subject do, as a constructive thinker and a practical guide he fails to do full justice to his wide knowledge and his outstanding abilities. None the less, his book is one that cannot be neglected.

W. H. DAWSON

L'œuvre économique de Jean-Baptiste Say. By ERNEST TEILHAC. (Paris: Librairie Félix Alcan. 1927. Pp. 392.)

JEAN-BAPTISTE SAY, it must be acknowledged, has for the present generation tended to move into the background; in a foot-note he receives credit for his work of "vulgarisation" of Adam Smith, and it is remembered that once (and perhaps still) he was known as the author of a "théorie des débouchés," which was regarded as a cardinal addition to enonomic theory. Yet it would be foolish to deny the very great influence which Say exercised; perhaps more than anyone (taking the world as a whole) he taught the early nineteenth century its political

economy, and particularly in America his treatise approached as near to a best-seller as a text-book on Political Economy is ever likely to do. It would be perhaps a question of literature to consider how far the triumph of Say was ultimately due to his clarity, his orderliness and his limpidity of style. The common judgment may be right, that Say had not much to give apart from what he received from others; but even those who hold this view should add that in the task of exposition he was assuredly in the first rank.

M. Teilhac has undertaken a pious work of resuscitation (in which patriotic motives play a certain part); for what he has essayed is no less than a survey of the history of Political Economy with Jean-Baptiste Say in the place of honour. Probably a re-perusal of Say would lead many to the conclusion that Say deserves a higher place than that to which he has been relegated. Nevertheless, the various theories which are more specifically associated with his name are at the most minor modifications or variations in emphasis. This is perhaps especially so in the case of the *Loi des Débouchés*, which for long was regarded as Say's passport into the company of the immortals. The precise nature of this theory may be recalled by three sentences in Say's own words. We ought not to say (observes Say): " La vente ne va pas, parce que l'argent est rare, mais parce que les autres produits le sont." Again: " il se trouve toujours qu'on a payé des produits avec des produits." Lastly: " on voit donc que le fait seul de la formation d'un produit ouvre, dès l'instant même, un débouché à d'autres produits." But the essence of all this can be found, for instance, in Quesnay's *Dialogue du Commerce*, where he says categorically, " que tout achat est vente, et que toute vente est achat "; that the mercantilist doctrine of selling more than is bought merely aims at a " commerce commencé." Nor are the conclusions drawn by Say from the *Loi des Débouchés* (as, for instance, that each is interested in the prosperity of all) different from those to be found in Smith or Quesnay. Say's conclusion, that " on ne gagne rien avec des peuples qui n'ont rien à vous donner," is but an echo not only of a familiar passage in Smith but also of Quesnay's dictum : " si ceux avec qui nous commerçons n'étaient pas riches, nous ferions un pauvre commerce."

If a later generation refuses to be greatly impressed by the *théorie des débouchés*, more credit may be allowed to Say for his work of systematisation and arrangement of the accepted body of doctrine. Moreover, in his rather curious analysis of the

threefold operations common in all industry—the work of *le savant, l'entrepreneur*, and *l'ouvrier*—Say pushes the entrepreneur into a position of new importance. To be the father of the entrepreneur, and such Say may claim to be, is no inconsiderable honour.

M. Teilhac approaches his work with certain high qualifications. He is erudite, and there is little in the development of economic doctrine in the last 150 years that has escaped him. More especially, as he has shown in another work, he has an unusual knowledge of American economic literature. The present study falls into two parts, the first of which is devoted to Say's life and an analysis of his work, in the main viewed from the angle of the *Loi des Débouchés*. The second part, which in bulk amounts to half the book, is concerned with "les origines et l'influence," and since, for M. Teilhac, Say is more or less the central figure in Political Economy, this comprehensive sub-title enables him to wander from the beginnings of doctrine down to Aftalion and Veblen and others of yesterday and to-day. It is indeed surprising to observe how finely-meshed is the net which M. Teilhac draws through the sea of economic literature.

Yet though there is much that is of value and much that is of interest in M. Teilhac's discussion, his is scarcely a book that can be read with pleasure. He is singularly lacking in the qualities which distinguish his hero. The French virtues of orderliness, clearness and simplicity are not here exemplified. Even of Say's doctrine there is nowhere a clear statement which could be comprehended by the ordinary man; if such a one desires to understand Say, let him read Say rather than this exposition of Say. M. Teilhac is too anxious to fumble in the philosophic depths, to lay hold on intangible relationships, and the result is an orgy of nebulous words which doubtless have a meaning to those accustomed to use them, but which leave all others speechless and uncomprehending. Let us, as the Scots lawyers say, expiscate two examples at random. Here is the relationship of Say to the Physiocrats :

> "L'œuvre de J.-B. Say fut, d'une part, de réduire leur naturalisme social au seul naturalisme économique, c'est-à-dire leur individualisme fin au seul individualisme moyen, leur rationalisme au seul naturalisme, mais d'autre part de doubler le libéralisme économique du libéralisme politique, d'unir l'économie libérale et la politique démocratique" (p. 194).

And here is a sentence bearing on our own Malthus:

> "En d'autres termes, non seulement Malthus adopte ce naturalisme économique qui n'atteint l'individualisme-fin que par l'individualisme-moyen, mais, dans la mesure pessimiste de ce naturalisme utilitaire, dans la mesure où l'individualisme-moyen ne réalise qu'imparfaitement l'individualisme-fin, il essaie, par un prodigieux renversement, de faire bel et bien de celui-ci le moyen de celui-là."

These are scarcely the terms in which most of us would sum up Malthus, if left to ourselves. Rather are we tempted to exclaim with Pantagruel: What devilish language is this!

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Capital and Finance in the Age of the Renaissance. By RICHARD EHRENBERG. (London: Jonathan Cape. 1928. Pp. 390. 21*s*.)

THE original (1896) edition of Ehrenberg's *Zeitalter der Fugger* was fully reviewed in the ECONOMIC JOURNAL of 1898 (Vol. VIII. pp. 100–102). The work was there acclaimed as "one of the most valuable recent contributions to economic history . . . entirely based on hitherto unexplored, or at least little explored, sources of contemporary documentary evidence." This favourable verdict has been confirmed by all later economic historians, and the need for an English version has long been felt. The Fuggers were the most powerful financial family of the earlier sixteenth century, and a full analysis of their activities in commerce, industry and politics might almost serve as an introduction to the general economic history of the period. Dr. Ehrenberg did not, however, confine his investigations to the business of the Fuggers. He studied also (though necessarily in less detail) the activities of all their rivals, whether Germans or Italians, Spaniards or Netherlanders. In his second volume he traced the growth and organisation of such international money markets as Antwerp and Lyons during the sixteenth century. He dealt also at considerable length with those international financial crises which made the later sixteenth century a critical period in the economic history of England and of all other European countries. In the concluding section of his work Dr. Ehrenberg described briefly the development of public debts during the succeeding two centuries, and traced the rise of modern stock

exchanges in various great European cities. This was the least authoritative part of his work and was, perhaps, not intended to be more than an epilogue. But this epilogue will have served a useful purpose if it helps the English reader to see the Bank of England and the South Sea Company in their proper relationship to contemporary financial developments on the Continent.

The present translation is not by any means a complete edition. From the preface and the translator's note it might be assumed that the portions omitted were inconsiderable; actually they amount to more than a quarter of the whole work. The serious student will be glad that the references mentioned in Dr. Ehrenberg's notes have been retained; but the notes have not been translated in full, and even the references themselves have not all survived. Some minor mistakes in the original version might have been corrected if the author's own list of *errata* had been consulted. Thus on p. 246 (line 9) *commidad* should be *comunidad ;* and on p. 142 (line 13) the word "other" should be omitted, as it obscures the meaning. In a book of this kind it would be a miracle if misprints were absent. Two transposed letters and an omitted comma on p. 15 make the translator invent a race of "Geonese Spaniards"; while on p. 17 (line 8) "Carolus" has become "Cayolus." Apart from these and other lapses in proof-reading, the translation seems to be admirably competent. Taking the edition as a whole, the publishers are justified in claiming that it provides the reader with "a fuller study than is elsewhere available in English of the financial developments which were the prelude to the industrial expansion of the seventeenth and eighteenth centuries."

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Le Corporazioni dell' Antica Firenze. By GIULIO GANDI. (Confed. Naz. Fascista dei Commercianti. 1928–Anno vii. Pp. viii + 270. 12 *lire*.)

Now that the Corporative State has been established in Italy, the Fascist régime is inspiring scholars to reveal its intimate connection with Italy's historic past and compare it with alien alternatives, such as Liberalism and Socialism. Hence the revival of interest in those spacious times when Italy was the economic schoolmaster of Western Europe. Hence the increased attention devoted to the medieval gild—the numerous articles in the monthly reviews and the recent exhibition of gild docu-

ments at the Sforza Palace, Milan. Hence this book, the objects of which are to popularise the corporative regulation of economic activity and make the average Italian realise the organisation and functions of the medieval gilds. It is dedicated to the Minister of Corporations—Mussolini. It is published by the Confederazione Naz. Fascista dei Commercianti—the Confederazione has itself adopted the eagle of the old Calimala gild as its crest.

Signor Gandi has done his work well. He has succeeded in presenting a vivid and attractive account of economic life and its relation to the religious and artistic activities of medieval Florence. Judicious selection from the statutes of the various gilds brings before the reader their manifold efforts—amazingly minute in detail—to restrict the economic egotism of their members. There is, however, no mention of the weaknesses inherent in the medieval economic system. Signor Gandi makes no original contribution to knowledge, but his pages reveal a close acquaintance with the work of Peruzzi and Davidsohn and such recent monographs as those of Sapori and Ciasca. For those who are unable to obtain access to Edgcumbe Staley's *Gilds of Florence*, Signor Gandi's book would be worth buying for the sketches and photographs alone—many of them reproducing buildings and streets of Florence, now destroyed.

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NOTES AND MEMORANDA

The United States Balance of Payments [1]

To a worker in the field of economics one of the thoughts that sweetens the passage of the years is that day by day the world is becoming more fully equipped with accumulating and improving records. To this result the United States Department of Commerce makes regular and voluminous contributions, not the least instructive of which is comprised in its estimates of the innumerable groups of items entering into the sum-total of America's transactions, on public and private account, with other countries. The estimates for 1928 have now been published, and their presentation reveals once again an admirable readiness to abandon old methods in favour of better, sparing no pains to render the results as accurate as possible and as technically sound as circumstances will permit. With the best will in the world, however, with almost unlimited personal and financial resources, and with the wealth of data available—far exceeding that in any other country—the estimates remain nothing more than estimates, and in some instances little more than guesses. Consequently, while America's balance of payments is on record in greater detail and in a higher degree of accuracy than for any other country, it must not be supposed that perfection has yet been reached. Perfection, true, must be regarded as a relative term, and the American estimates come very near that definition if account be taken of the natural limitations still existing.

The table on p. 461 shows the principal items entering into the American balance of payments in the past two calendar years. They have been divided into four groups, two of which are clearly allied, one quite distinct from these two, and one a marginal group. The figures relating to movements of goods, together with the so-called "invisible" items, grouped under the heading "Other Current Items," make up the current account, which comprises a record of incomings and outgoings. The credit surplus on this account represents an accretion to the country's net claims upon other parts of the world, while the direct estimates of changes in the amounts of these claims and of their off-setting debts are shown under "Capital Movements."

[1] Reprinted by permission of the Midland Bank from their *Monthly Review*, July–August, 1929.

This grouping is adopted upon just the same principle as should govern an individual's personal accounts, for these too, as is generally recognised, should show the direct relationship between purely current income and expenditure, in order that a residual balance may be arrived at which represents an addition to or subtraction from the individual's material capital. As distinct from these clearly distinguishable groups of items, gold transactions, which are also separately shown in the table, are of a mixed character. They enter into the current account in the sense that gold movements sometimes take place because of a maladjustment between claims currently falling due against a country, and immediate claims of that country against the rest of the world. On the other hand, gold transactions are capital movements in the sense that gold itself is real capital, from the possessor's point of view, and in the sense that some gold transactions represent purely the exchange of one form of capital for another. This is so, for example, when bank balances owned in one country by the central bank of another are converted into gold, whether the gold is left in the foreign centre or actually shipped to the country of its owner.

The "Balance of Trade" and Gold

The various items in the accounts are well worth careful study, though little will be said regarding them at this point. They show the extraordinary complexity of interaction between the different items in the account, and the amazing resiliency of a country's balance of payments. This fact is well illustrated by consideration of a very old theory, commonly set forth in books of economic instruction written either before the present stage of understanding was reached, or without realisation that such a stage had in fact been attained. We were told in the days of primitive simplicity that if a country's "balance of trade" moved adversely, gold would be exported to meet the excess claims falling due. If, that is, a country increased its imports unduly, in relation to its exports, or if it sold fewer goods to foreigners, without reducing its purchases from them, then it would have to ship gold abroad. The converse was also laid down, with equal regard for simplicity in mechanics. It is doubtful whether this theory was ever so true as was stated or implied, but of one thing we may be assured—that it is certainly not true to-day. Gold, indeed, seems to move about for a hundred-and-one reasons but these! Let us take an example from the table. In 1928 the United States had a commodity export surplus about $250

United States Balance of Payments, 1927 *and* 1928

(Millions of dollars)

Dr.	1927.	1928.	*Cr.*	1927.	1928.
COMMODITY TRADE					
Merchandise imports	4,184	4,091	Merchandise exports	4,865	5,129
Purchases of coal and oil bunkers abroad	29	25	Sales of coal and oil bunkers	60	50
Imports of silver	55	68	Exports of silver	76	87
Miscellaneous items and adjustments for smuggled goods, bad debts, etc.	240	313	Miscellaneous items and adjustments for bad debts, etc.	90	68
	4,508	4,497		5,091	5,334
OTHER CURRENT ITEMS					
Freights paid to foreigners on imports	206	227	Freights received on exports	140	143
Insurance payments abroad	70	70	Insurance receipts	80	80
Expenditure abroad of travellers from U.S.	696	782	Expenditures of foreign visitors in U.S.	163	168
Immigrants' remittances abroad	241	217	Amounts brought in by immigrants	35	28
Payments on foreign long-term investments in U.S.	203	252	Receipts from long-term investments abroad	743	817
Payments on foreign short-term investments in U.S.	78	107	Receipts from short-term investments abroad	57	65
Government payments abroad, etc.	86	110	Government receipts on account of war debts	206	210
Charitable and missionary contributions abroad	49	52	Other Government receipts	57	53
Royalty payments on foreign cinema films	4	6	Cinema film royalty receipts	75	70
Other items	51	53	Other items	133	135
	1,684	1,876		1,689	1,769
GOLD MOVEMENTS					
Imports	207	169	Exports	201	561
Releases from earmarked accounts	23	188	Earmarkings on foreign account	183	68
	230	357		384	629
CAPITAL MOVEMENTS					
New U.S. investments abroad	1,606	2,070	New foreign investments in U.S.	889	1,704
Purchases of U.S. securities held abroad	661	1,153	Sales of foreign securities, etc. held in U.S.	449	492
Redemption and sinking-fund payments	70	70	Redemption and sinking fund receipts	301	361
Decrease in foreign-owned bank balances, etc.	—	226			
	2,337	3,519		1,642	2,557
Balance due to errors and omissions	47	40			
	8,806	10,289		8,806	10,289

million larger than in 1927. But were foreigners compelled to ship more gold to the country? On the contrary, whereas in 1927 the United States actually sold about $150 million of gold to other countries, in 1928 she sold even more, about $270 million.

A later defence of the theory was grounded on the statement that commodities were not the only things to be taken into account in estimating the "balance of trade"; there were

"invisible" imports and exports—those mysterious transactions which the ordinary man thought were extracted from *Alice in Wonderland*, since what seemed to him clearly an export was often called by economists an "invisible" import. However, even when this idea was clearly grasped the facts unkindly refused to fit the theory. Let us consult the table again. On all current accounts, including invisible items but excluding gold, in 1928 the United States attained an export surplus of well over $700 million, as compared with one of less than $600 million in 1927. Surely here was a situation in which foreign countries simply could not help sending gold! But, as we know, the movement of gold was in precisely the opposite direction. The fact is that international capital transactions and short-term borrowings are by far the most immediately potent factors in the movement of gold.

The reason for the refutation of the old and simple theory is to be found in the transactions on capital account, and it becomes more and more clear that gold moves, not as the result of any one group of items in the balance of payments, but as a consequence of a concatenation of all sorts of different facts, varying widely in their character and origin, and having infinite reactions and interactions. The same applies, not merely to the gold item, but to all the others except those representing the fulfilment of an unvarying collection of long-term contracts, such as receipts on account of war debts. No single item or group of items can be regarded as either wholly causal or wholly resultant, nor are the most important proximate influences in determining their size to be found in the size of other items in the account. Factors of prices, exchange movements, and accidents of business, politics and act of God are probably far more important in affecting the size of the different items than movements in other individual items. The relationships between all the different kinds of transactions constitute a field of study which is as yet almost unexplored, and the Department of Commerce is to be congratulated on its constant references to the obscurity which surrounds it and the complexity to be found within it.

One of the most useful innovations in the latest bulletin is the publication of a table of revised and comparable figures covering the entire period 1922–28. These figures have been summarised in the statement on p. 463, in which movements of gold and of paper currency have been entered in the current account in order to bring out clearly the changes in the capital position of the country, as arrived at by the residual method. The

changes as computed by direct estimates are shown in the capital account, the differences between the results on the residual and the direct systems being attributable to errors and omissions.

Summary of United States Balance of Payments, 1922–28

(Millions of dollars)

	1922.	1923.	1924.	1925.	1926.		1928.
Import (−) or export (+) surplus on current account :—							
Commodity trade . . .	+589	+206	+882	+633	+278	+583	+ 837
" Invisible " items . . .	−145	+ 2	− 80	−120	− 73	+ 5	− 107
Gold, and paper currency .	−194	−245	−236	+ 72	− 72	+154	+ 272
Net increase or decrease in debts due from abroad . . .	+250	− 37	+566	+585	+133	+742	+1,002
Changes on capital account :—							
Net long-term lending to (−) or borrowing from (+) abroad .	−685	+ 30	−733	−560	540	−695	736
Net short-term do. . .	+375	+ 3	+216	− 61	359	– –	226
Total	−310	33	−517			−695	
Discrepancy, due to errors and omissions	+ *60*		− *49*	*36*		− *47*	

¹ Paper currency is included in the figures for the first four years only.

It will be noticed that no very regular trend is observable in the residual figures. In 1922 the United States lent a substantial amount abroad; in 1923 there was no surplus available for this purpose; in 1924 and 1925 large net amounts were invested outside the country; in 1926 a relatively small sum; in 1927 a much larger amount again; and in 1928 a still bigger sum, surpassing even that achieved on Great Britain's balance of payments, which amount was itself, at £150 million, the largest since 1923. The figures for 1928 must therefore be written down as pre-eminently acceptable to Americans, in that they gave full scope for the employment of the phrase "all-time record" and its numerous and not always musical synonyms.

The unprecedented increase in 1928 in America's claims on other countries was disproportionately divided, as the table shows, between long-term and short-term lendings. Three-quarters of the surplus available from current account operations was used to strengthen America's long-term capital position, and one-quarter to strengthen her short-term relationships. On long-term account the United States, already a creditor, invested large net sums abroad, while on short-term account America the debtor reduced her outstanding indebtedness to other countries by a substantial amount. Thus we find that United States long-term investments abroad at the end of 1927 were estimated at between $11,500 and $13,500 million, while the total for a year later was set between $12,555 and $14,555 million. These

figures exclude any capitalised amount in respect of war debts. As against these totals, it was computed that foreign long-term investments in the United States at the end of 1927 amounted to about $3,700 million, and this figure is apparently accepted as true also of a year later. At the end of 1928, then, the United States was a creditor country in respect of long-term claims to a net total of, let us say, very roughly, $10,000 million. By contrast with this strong creditor position, America was estimated on short-term account to be in debt to the rest of the world, at the end of 1927 to a net amount of $1,864 million, while the figure for a year later was $1,638 million. Consequently, on long- and short-term accounts together the United States was a creditor to the extent of about $8,500 million. The addition of the present value, on a 5 per cent. basis, of the war debts to the United States Government would raise the total to about $14,000 million. These figures, by reason of difficulties in estimating the individual items, and the effect of cumulative margins of error, must be regarded as distinctly tentative, but it is encouraging to note that the Department is obtaining more detailed particulars which may materially increase the reliability of the resulting estimates.

America's Short-term Indebtedness

The figures which show perhaps the greatest initiative in their compilation, but at the same time yield the most questionable results, are those relating to the growth or decline of foreign-owned short-term funds in America and American short-term funds in other countries. These items are by their nature extremely elusive, and the statistics are obtained as a result of annual questionnaires addressed to numerous banking and other financial institutions. The outstanding short-term debts between the United States and other countries at the end of the past two years, as compiled by the Department, are summarised in the table on p. 465.

It might have been supposed, in view of popular notions regarding New York stock and money market conditions and the fluctuations in the sterling exchange, that during last year foreigners would have increased their holdings of short-term funds in the United States, and that America's net indebtedness on short-term account would have risen. If the figures in the table are accepted, however, neither of these developments has occurred. The Department of Commerce bulletin contains an explanation of this superficial anomaly, pointing out that,

(Millions of dollars)

	December 31 1927.	1928.
Debts to United States :		
American deposits abroad	233	198
Short-term loans to foreigners	970	1,121
American funds in foreign money market	33	28
	1,236	1,347
Debts from United States :		
Foreign deposits in United States	1,938	1,751
Short-term borrowings from foreigners	197	275
Foreign funds in American money market :		
In bank acceptances	406	570
,, Treasury certificates	445	174
,, brokers' loans	101	207
,, other forms	13	8
	3,100	2,985
Net United States' indebtedness	1,864	1,638

although American money rates rose, so also did European; that, in addition, foreigners bought vastly increased amounts of American goods, so that the export surplus was increased and foreign funds already in America had to be drawn upon to meet the payments involved; and that, finally, American long-term loans abroad were severely restricted in the second half of the year. These considerations show how extremely mobile are short-term funds, and how easy it is to fall into errors of fact when speaking of " inflows " and " outflows " of funds from one country to another. Applying and adapting the arguments already outlined to the position in the first half of the present year, it would seem highly doubtful whether the recent weakness of sterling in terms of dollars has been due, to any large extent, to private investment by non-Americans of short-term funds in New York. Much more probably is it to be related with the far lower level of foreign long-term security issues in the United States and the consequent failure to balance on other accounts. Thus, according to the latest statistics of the New York *Commercial and Financial Chronicle*, the par value of foreign issues in New York in the first five months of 1929 was less than $400 million, as compared with well over $700 million in the corresponding part of 1928.

The figures of debts due to America are less striking than those in the lower half of the table. First of all, it will be seen that on both dates foreign-owned deposits in American banks accounted for nearly two-thirds of the total amount due to foreigners. This is an unexpectedly large proportion, but it has to be remembered that a considerable part of the funds would

be standing to the credit of foreign central banks as a constituent of their cash reserves against notes and other demand liabilities.

The next largest item in the 1928 return consists of foreign holdings of American bank acceptances. The figure of $570 million for December 31 last is surprisingly high, seeing that the total acceptances of American banks, as returned by the American Acceptance Council, on the same date was $1,284 million. Roughly speaking, then, foreigners appear to have been holding about one-half of the total bank acceptances available. In addition, however, it must be remembered that paper of this kind forms one of the media for the exercise of Federal Reserve open market policy. On January 2 last the twelve Federal Reserve Banks held altogether $484 million of bills bought in the open market. It will be seen, therefore, on what a narrow margin of supply the New York bill market works, and in the light of these facts it is easy to appreciate the eagerness of the American monetary authorities to develop the bill market by encouraging the use of paper of this kind.

The figures of foreign holdings of Treasury certificates show a heavy decline over the year. Certificates of indebtedness are short-term securities bearing a fixed rate of interest, thus differing in important respects from British Treasury bills, and are freely dealt in on the New York money market at variable prices. The decline in the foreign holdings has to be attributed, not to any loss of attractiveness relatively to other investments, but to a quite distinct and fortuitous influence. Last year it was decided to grant to foreign central banks exemption from liability to tax on the income received from investments in bank acceptances, this exemption already applying to holdings of certificates of indebtedness. Thus one of the principal elements of superiority in certificates was removed.

These remarks give some indication of the degree of importance to be attached to the decision, recently taken in the United States, to supplement the certificate system by the use of securities similar to British Treasury bills. Should the powers recently granted to the United States Treasury be used to any large extent, then some of the foreign-owned funds in New York might be utilised in the purchase of these securities. This would ease the pressure on the acceptance market and provide an additional type of paper, of gilt-edged character and possessing the quality of non-depreciability, for general use in the investment of short-term funds. It is possible that the scheme may have been put forward partly with a view to stimulating the

development of a large-scale bill market in New York, which the Federal Reserve system was to some extent designed to attain and has largely failed to achieve. At the same time it would not appear likely that the mere availability of a new form of security would tend to increase the amount of foreign-owned funds accumulating in the United States. The volume of such funds depends, as we have already indicated, on factors far more potent than this. Briefly, the possible availability of United States Treasury bills may very well alter the disposition of foreign-owned funds, but may be expected to have but slight, if any, effect upon their volume.

Perhaps the most striking item in the table has yet to be mentioned, namely the amount of foreign-owned money lent in the form of brokers' loans. The figures for both years are amazingly low. The *Monthly Review* of the Federal Reserve Bank of New York, in commenting recently on the statistics of short-term funds, remarks that these figures would probably have been considerably larger if some other date had been chosen for the returns, since "a number of foreign lenders in the call market withdrew funds on December 31, probably for 'window-dressing' purposes." This, however, may not be the only explanation. It is possible that American "window dressing" may have led to the offer of greater inducements to foreigners to hold their money on deposit over the year-end rather than in brokers' loans. Even so, and allowing for such a twin movement, the figures still seem to err on the low side. The weekly returns of loans to brokers compiled from figures of the reporting member banks in New York City divide the total, which is not all-inclusive, into three groups, loans "for own account," "for account of out-of-town banks," and "for account of others." On January 2 this last section accounted for no less than $2,166 million, which represented a decline of about $156 million from the previous week s figure. If we regard this decline as giving some indication of the strength of the year-end influences mentioned, and add to it the amount lent to brokers as shown in the table, we arrive at a figure of about $360 million, which may be taken as a very rough guide to what might be called the "normal" foreign loans to brokers about the end of last year. Even this figure, however, appears distinctly low in relation to the total foreign-owned funds in the United States, and it would almost seem as if some foreign-owned money in essence lent to brokers has for some reason been included, in replies to the questionnaire, among foreign deposits. It may, indeed, be taken as highly unlikely

that foreigners should own, as a "normal" arrangement, say \$1·600 million in the form of American bank deposits against only \$360 million employed in the call market, where better rates were to be earned.

Apart from these points, arising from the individual items, the total debts from the United States, as shown in the table on p. 465, possess strong significance. The Reserve Bank *Review*, in commenting on the small difference between the two figures, suggests that if the return had covered all the institutions, without exception, in or through which foreigners held dollar funds there would have been even less change as between the end of 1927 and of 1928. In any case, however, it is probably safe to say that no increase took place during the year in the total volume of foreign-owned funds in the United States. This emphasises the truth of the statement that the weakness of sterling has not been due primarily to a so-called "flow of funds" from Europe to America. The predominant factor has undoubtedly been the drastic curtailment of American long-term lending abroad.

Long-term and Short-term Funds

The essence of these facts is clear. America has been keeping more of her funds in her own control, and passing on a smaller amount to foreigners by way of loans. For some time past she had been lending long abroad and borrowing short from abroad. The surplus had been on the side of an increase in American claims, long and short together, on other countries, but it remains true that foreigners had borrowed heavily in the New York capital market and had accumulated larger and larger quantities of short-term funds in America. It followed that when foreign issues were restricted foreign-owned funds ceased to grow. The way in which the theoretical connection works itself out is simple. The decline in foreign issues restricts the new supplies of dollars coming into foreign ownership, and thus places pressure on the exchanges of other countries; in order to maintain their exchanges these other countries have to draw on their accumulated holdings of dollar funds. If, then, foreign issues in New York were to cease altogether a rapid decline might be expected in the volume of foreign-owned funds in New York. The two elements in international indebtedness are inseparable, but the governing partner is the quantity of long-term lending through the new capital market.

Leaving the figures of foreign funds in the United States, and turning to the other side of the picture, we see that foreign

short-term debts to the United States increased over the year by a fairly substantial amount. America, therefore, has been to some extent supplementing a declining volume of long-term loans to other countries by an increasing volume of short-term accommodation. As the net result of all these movements, America has on balance reduced her external indebtedness on short-term account, while increasing, at a slower rate than before, the indebtedness of foreign countries to her on long-term account. Thus the creditor position of the United States is still being steadily strengthened. By one means or another the process goes on, irrevocably, inevitably, with the sureness almost of a law of nature. Indeed, it is almost a law of nature that if a creditor country takes all possible steps to expand her exports to foreign markets, and at the same time maintains an attitude of active dislike for foreign imports, then her investments abroad must pile up and up indefinitely. If the seller insists on selling and prefers not to buy, there is only one possible result. The buyer must go further into debt—always assuming the new debts are not balanced by the cancellation, with or without the consent of the creditor, of old debts. There is always the bankruptcy court at the end of the road, and it is an interesting speculation how far nations, as economic entities, can in practice go into debt without plugging the wells of accommodation. On the answers given to specific questions arising from this general problem hangs the formulation of a wise, far-seeing policy for American trade.

OBITUARY

Dr. Jiuchi Soyeda

We announce with great regret the death of Dr. Soyeda, one of the oldest of the Foreign Correspondents of the Royal Economic Society. Soon after the Society's foundation he was appointed its Correspondent for Japan and his first communication was published in the *Journal* in 1893. From that time to this he has continued to send to the Editor valuable notes relating to Finance and the progress of Economic Studies in Japan with an extraordinary regularity and faithfulness. The modesty and charm of his correspondence, carried on over so many years, endeared him to colleagues in the management of this *Journal*, who could be personally acquainted only with his familiar and beautiful handwriting.

J. M. K.

By the death of Dr. Jiuchi Soyeda Japan has lost one of her leading financiers and economists. Dr. Soyeda belonged to a generation of Japanese whose principal life work was done in the reign of the Emperor Meiji, when the nation was beginning to organise its economic and social life on modern lines. The leaders of those days were earnest and patriotic spirits whose one aim was to see that their country should come to occupy a worthy place in the world and should take its proper rank among the first-class powers. These men have now been superseded by others, many of whom the fortunes of the great war raised to power and influence. But it was the earlier generation to which Soyeda belonged which did the great work in laying the foundations of modern Japan and guiding the country through the most difficult period of its history.

Born in 1864, of Samurai family, he showed at quite an early age remarkable powers, particularly in the execution of ideographs, and as a child he travelled in various parts of the country with his father giving exhibitions of Japanese writing. One of his scripts, made at the age of nine, is still to be seen hanging on the walls of one of the leaking Tokyo temples. He entered the Tokyo Imperial University, where he studied Economics, and on his graduation continued his education at Cambridge. Here he came under the influence of Marshall, a fact to which he always referred with great pride. After a short period at Heidelberg he returned to Japan and was appointed private secretary to the Minister of Finance, later becoming Vice Minister at the early age of 35. In 1899, the year he received his doctorate, he was appointed President of the Bank of Formosa, a connection severed long before the decline and disastrous failure of that institution in the spring of 1927. On the establishment of the Industrial Bank of Japan in 1902 he became its first president, a position he held till 1913. In 1915, under the Okuma Cabinet, he became President of the Imperial Railway Board and was later decorated with the first Order of Merit.

He was a member of the Upper House, where he frequently took part in debates on finance. In the most recent session of the Diet, his last appearance, he took a leading part in a resolution denouncing the former Tanaka Cabinet in connection with the so-called "gracious Imperial message" affair—a political move in which the Cabinet irreverently involved the name of the Imperial House.

Primarily a practical banker, he remained to the end of his life an untiring student of economic thought and was always in close

touch with the latest ideas and thought on monetary and banking theory. Silent and reserved in manner, great reliance was placed on his word, for among his friends and colleagues he had the reputation of never getting ruffled and remaining calm and wise in the most difficult emergency. He had strong humanitarian instincts and was one of the founders of the Labour and Capital Harmonisation Society, an organisation having the idealistic aim of restoring the one-time fraternal relationship between worker and master. There is a story that the police of a certain district of Tokyo were once very much mystified by the doings of an elderly gentleman who during his morning walks took a somewhat intimate interest in the affairs of workmen and carters, sometimes giving them a helping hand with their burdens. On investigating his identity they were very much surprised to discover that this benevolent old gentleman was none other than Soyeda, the great banker and sometime Cabinet Minister. He was one of the founders of the League of Nations Association of Japan and spent much time in his later years in working and lecturing on behalf of this institution in various parts of Japan. Dr. Soyeda was buried in Tokyo with Shinto rites, his funeral being attended by some 2000 mourners.

TREVOR JOHNES

Tokyo.

CURRENT TOPICS

THE following have been admitted to membership of the Royal Economic Society :—

Bailes, H. H.
Balster, E.
Biswas, H.
Boettiger, Prof. L. A.
Burbridge, W. B.
Burnham, G. C.
Campbell, C. D.
Clark, N. H. A.
Coates, W. H.
Cogman, W. E.
Cohen, Miss R. L.
Dietrich, Prof. E. B.
Donaldson, McP. H.
Douglas, L. W.
Dudt, R. C.
Fay, H. Van V.
Fisk, Dr. E. L.
Fordham, H.
Giles, H. A.
Goldberg, B. W. H.
Grant, H. S.
Grohman, C. J.
Grout, E. H.
Hall, F. G.
Hall-Guy, E.
Halpern, M. L.
Hannibal, T.
Hazell, W. H.
Horlock, A. E.
Hotelling, Prof. H.
James, Miss C. W.
Kindell, W. J.
Lahiri, S. K.
Lalvani, T. V.
Lewis, H. P.
Lovett, W.
McDonald, P. L.
McMurtrie, A. F.
Mathur, Prof. R. N.
Meade, J. E.
Migliorisi, Dr. F.
Miller, Prof. H. E.
Morland, T. A.
Moss, A.
Naito, Prof. A.

Newbert, A. R.
Ouwerkirk, Miss L. C. M.
Panjabi, B. L.
Parker, A.
Parris, S. C.
Parsons, T.
Phillips, H. W.
Polwarth, J.
Puscariu, Dr. A.
Rajamannar, T.
Rathbone, H. P.
Rimka, A.
Rogers, E. H.
Rust, T. T.
Sayers, R. S.
Sbarounis, Prof. A.
Scott, M.
Selck, Prof. E.
Shukla, Prof. S. S.
Simons, Prof. H. C.
Stafford, J.
Strickland, N. C.
Sturgeon, R. W.
Sullivan, J. R.
Talati, B. M.
Tomlins, W. E.
Van Sandick, A. A.
Ward, J. P.
Wilson, J. R.

The following have compounded for life membership of the Society :—

Daroowalla, N. A.
Fay, H. Van V.
Gash, Rev. I. J.
Grout, E. H.
Jolly, B. M.
Majumdar, D. L.
Mynors, H. C. B.
Pearson, F. G.
Puscariu, Dr. A.
Watson, A. D.

The following Libraries have compounded for fifteen years' subscriptions :—

Cambridge University Union Society.
City of London College.
Glasgow University.
Pomona College, California.
Victoria University, Wellington, New Zealand.

The following have been admitted to Library membership :—

Staatswissenchaftliche Institut, Prague.
Hessische University, Giessen, Germany.
Polish Parliament Library, Warsaw.
Temple University, Philadelphia.

Prof. G. Findlay Shirras writes :—" Since the failure over a year ago of the Reserve Bank Bill to reach the Statute Book, this question has been to the front. In April of this year the Government of India published a provisional scheme of inquiry drawn up in consultation with the representatives of the two associations of the Indian and European Chambers of Commerce, and of the Indian Legislature. Local Governments were also consulted and a Central Committee and ten Local Committees, one for each of the nine major provinces, and the tenth for the centrally administered areas, namely the North-West Frontier

Provinces, Baluchistan, Delhi, Ajmere–Merwara, etc. have now been set up. The preliminary meeting of the Central Committee took place in Bombay on June 28, and it considered with Sir George Schuster, the Finance Minister, the general lines of inquiry and the questionnaire to be issued to Provincial Committees. The aim of the inquiry is the investigation of existing conditions of banking in India with special reference to (*a*) the regulation of banking with a view to protecting the interests of the public; (*b*) the development of banking in the sense of expansion of both indigenous and joint-stock banking with special reference to the needs of agriculture, commerce and industry; and (*c*) banking education with a view to the provision of Indian personnel in adequate numbers and with necessary qualifications to meet the increasing needs of the country for a sound and well-managed national system of banking. The Central Committee has as its Chairman the Hon. Sir. B. N. Mitra, whose duties will commence on the termination of his appointment as Member of the Viceroy's Council. In the meantime Sir Purshothamdas Thakurdas will take his place. The Committee includes representatives of the Federation of Indian Chambers of Commerce, the Associated Chambers of Commerce, the various classes of banks, including indigenous and co-operative banks, economics, and the general public—twenty-one in all. The Central Committee may also co-opt members locally when they examine the credit facilities for India's main industries, such as cotton, jute, and coal. Facilities will also be offered to any of the Indian States that may desire to take part in the inquiry.

"The programme will extend as at present planned, to April 1931. From August 1929 to March 1930 Provincial Committees will be at work and sub-committees of the Central Committee will also be collecting information on the special problems which are its concern. From March 1930 to November 1930 the Central Committee will be occupied in the study of the reports of its own sub-committees and the Provincial Committees. Provisional conclusions and recommendations may be settled by the end of this period. From November 1930 to January 1931 joint discussions and examination of the subject-matter of the inquiry will take place between the Central Committee and the Advisory Committee of outside experts. The final report of the Central Committee will be submitted by April 1930. The Charter of the Imperial Bank of India expires in 1931 and the Report will be of value when the Central Bank question will then in every probability be reopened.

"The work of the Hilton-Young Royal Commission will be supplemented by this investigation, an investigation that is bound to tackle the chief problem of Indian banking to-day—the establishment of close touch between the many petty indigenous shroffs or bankers up and down the country and the joint stock banks."

PROF. G. F. SHIRRAS writes :—" The annual meeting of the Indian Economic Association was held in Mysore from January 3 to January 5 under the auspices of the University of Mysore. The delegates representative of teachers and others interested in economics in India were welcomed by the Vice-Chancellor and by His Highness the Yuvaraja of Mysore. The presidential address of Professor V. G. Kale, Poona, dealt with Economics in India. He referred to the new economic awakening in the country, the improved teaching both in postgraduate and in undergraduate courses, and also to the fact that there are few professed economists who have attained eminence in their special province. The programme of the Conference was divided into land tenure, federal and local finance. The papers on land tenure stressed the necessity of better tenancy legislation. The President pointed out that this would not be a solution of the difficulties that exist. There must be an improvement in the relations between the landlord and the tenant. There was considerable discussion on federal finance and the papers read were of a high order. The need for readjusting central and provincial finance in India is a question of first-rate importance. It is a problem now under consideration by the Simon Commission.

"The delegates were the guests of H.H. the Maharaja during the Conference. Excursions were also arranged for the days immediately preceding the meetings, and it was possible, thanks to Mr. Subba Rao, to visit the Kolar Gold Fields, the Bhadravati Iron Works, the Sivasamudram Hydro-electric works, and the great Cauvery irrigation project.

"The thirteenth meeting of the Conference will take place at Allahabad during the Christmas holidays under the Presidency of Mr. N. S. Subba Rao. The subjects of discussion will be marketing, Indian Finance, and the development of economic thought in the twentieth century."

THE eighth of Mr. Alvan T. Simonds's "Economic Contests," for 1929, has been announced. The subject for this year is "The Federal Reserve System and the Control of Credit." A first prize of $1000 and a second prize of $500 is offered to the writers of those essays which are adjudged the best. The essays should be written in a popular style, to interest the average person as well as the technically trained. A copy of the rules and further particulars can be obtained from the Economic Contest Editor, Simonds' Saw & Steel Co., 470 Main Street, Fitchburg, Mass., U.S.A. Essays to be considered should reach him on or before December 31, 1929.

OUR Dutch correspondent writes:—"It may be noted that the following Bills have been accepted in Holland by the First Chamber:

1. The Bill to revise the financial relations between the State and the communes, which was dealt with in the ECONOMIC JOURNAL for March 1929.
2. A Bill revising the Act existing since 1913 for Health Insurance of Employees; it is now permissible for insure with private corporations created for the purpose by organisations of employees and trade unions or by associations which are members of such organisations or unions.
3. A Bill giving general rules for State guarantee and control of standardised products of agriculture, horticulture and dairy industries, if desired by the parties interested (Agricultural Export Act).

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

Vol. XCII. Part II. *Discussion on the National Income.* A. L. Bowley and others. *An investigation of Sickness in various Industrial Occupations.* A. B. Hill. *Wholesale Prices in* 1928. Editor of the *Statist.*

Part III. *The Limits of Industrial Employment.* E. C. Snow. *The Movement of Wages in Germany* 1920—1928. E. Bresciani-Turroni.

The Economic Record (Melbourne).

May, 1929. *The Administration of Government Enterprises.* F. A. Bland. *The Strike of the Australian Waterside Worker.* W. J. Brown. *Some Economic factors in Industrial Relations.* R. C. Mills. *Some Statistical Aspects of Australian Industry.* C. H. Wickens. *The Post-war Sex- and Age-constitution of the New Zealand Population, and some of its Economic Consequences.* E. P. Neale. *New Zealand's Trade with the East.* W. A. McNair. *The Railway and the Road Motor.* T. Hytten. *Unemployment: some Recent Suggestions.* C. E. Martin. *Prices and Monetary Theory.* D. B. Copland.

Transactions of the Faculty of Actuaries.

Vol. XII. Part VI. *The Statistical Groundwork of Investment Policy.* C. M. Douglas.

The Sociological Review.

April, 1929. *Normal and Abnormal Psychology in Relation to Social Welfare.* A. Raven. *A Survey of Social Conditions and Problems in Margate.* A. Farquharson. *Social Studies in Majorca.* M. Maplesden.

Indian Journal of Economics.

April, 1929. *Indian Labour Organisation and Forced Labour.* P. P. Pillai. *Business forecasting.* K. B. Madhava. *Co-operation in the Madras Presidency.* A. J. Saunders. *Land Rights in Bengal.* I. C. Ghosh. *Export Duties in the Indian Empire.* E. H. Solomon. *Necessaries, Comforts, and Luxuries.* J. K. Mehta.

Quarterly Journal of Economics.

May, 1929. *The Current Labor Policies of American Industries.* S. H. Slichter. *Imports of American Gold and Silver into Spain,* 1503—1660. E. J. Hamilton. *The Monetary Doctrines of Messrs. Foster and Catchings.* D. H. Robertson. *Co-operation and the Rural Problem of India.* C. F. Strickland.

Journal of Political Economy.

APRIL, 1929. *Agrarian Problems of Modern Japan.* D. J. ORCHARD. *Integration in the Automobile Industry.* E. FLÜGGE. *Federal Regulation of Railway Securities.* J. H. FREDERICK. *Sherman Law and Trade Union Activities.* G. W. TERBORGH. *Contour Lines in Economics.* C. W. COBB.

JUNE, 1929. *Recent Federal Reserve Policy.* H. L. REED. *Agrarian Problems of Modern Japan.* D. J. ORCHARD. *Morgenstern on Economic Forecasting.* A. W. MARGET. *The* 1928 *Hearings on the Strong Bill.* L. D. EDIE. The evidence reported is of interest in relation to the practice of the Reserve Banks in relation to stabilisation.

American Economic Review.

JUNE, 1929. *Small loans problem: Connecticut Experience.* C. O. FISHER. *Gold Standard in Switzerland.* G. BACHMANN. *History of the London Stock Exchange.* C. F. SMITH. *Irving Fisher on Income.* W. W. HEWETT. *State Income Tax since* 1918. T. C. BIGHAM. *Correlation Coefficients.* M. EZEKIEL.

Review of Economic Statistics (Harvard).

MAY, 1929. *Gold Production: a Survey and Forecast.* J. KITCHIN. *Revised index of the volume of manufacture.* W. F. MAXWELL. *The Census of Distribution.* P. T. CHERRINGTON. *Review of the First Quarter of the Year.*

Journal of Economic and Business History (Harvard).

MAY, 1929. *Roman Exploitation of Egypt in the First Century* A.D. M. ROSTOVTZEFF. *Recent Progress of American Social History.* A. NEVINS. *Evolution of the Foreign Exchange Market of the United States.* A. H. COLE. *Dominance of the Trades in the English Coal Industry in the Seventeenth Century.* J. U. NEF.

Annals of the American Academy of Political and Social Science.

MAY, 1929. This number is a comprehensive study, in thirty-six articles, of the question of *Women in the Modern World.* The main headings are *The Women's Movement, The Modern Home, Industry, Business and Professions, Citizenship, Legislation,* and *Integration of Women's Activities.*

Wheat Studies of the Food Research Institute
(Stanford University, California).

MAY, 1929. *Survey of the Wheat situation December* 1928 *to April* 1929. During this period Wheat prices fluctuated widely, but remained at the lowest level since 1923–24. International trade was of record volume for the season. Low prices encouraged consumption, especially in ex-European countries, which imported larger quantities than ever before. But in spite of these record shipments the accumulation of stocks in exporting countries remained extraordinarily large. Prices in the United States were above the parity of world prices, with the result of a particular accumulation of stocks in that country.

JUNE, 1929. *Variations in Wheat Prices.* An attempt to offer a non-technical picture of wheat price variations, principally in the United States, during the past three decades.

JULY, 1929. *The Export Debenture Plan for Wheat.* An ingenious proposal to supplement the protective tariff by a system of export bounties on farm products of which the United States produces export surpluses. But the Institute concludes that the results would be disappointing.

Political Science Quarterly.

JUNE, 1929. *An Analysis of Japan's Cheap Labour.* D. J. ORCHARD.

International Labour Review.

MAY, 1929. *The Question of Forced Labour.* J. GOUDAL. *Accident Prevention and Factory Inspection.* F. RITZMANN. *General Principles of an International Convention on the Conditions and Contiasts of Employment of Foreign Workers.* L. VARLEZ. *Workers' Agricultural Programmes in Austria, England, and Germany.* F. BAADE.

JUNE, 1929. *The International Regulation of Hours of Work of Salaried Employees.* R. FUHS. *The Reform of Social Insurance in Austria.* M. LEDERER. *The Problem of Rural Settlement in Spain.* O. GORNI.

JULY, 1929. *The functions of the International Labor Office.* J. OUDEGEEST. *Public Utility House Building.* K. LIEFMANN. *Social Aspects of Agrarian Reform in Latvia.* F. W. v. BÜLOW. *Recent Developments in Industrial Co-operation in the United States and Canada.* J. H. RICHARDSON.

Revue d'Économie Politique.

MARCH–APRIL, 1929. *De quelques principes directeurs de la fiscalité moderne.* B. NOGARO. *L'investment trust.* C. LAZARD. *Le financement de la consommation : vente à crédit et "finance companies"* R. NATHAN. *Les débuts de l'assurance-crédit à l'exportation.* G. DE TARDE. *Le marché de Paris et les acceptations de banque.* L. POMMERY.

MAY–JUNE, 1929. *La France économique.* (*Annuaire* for 1929.)

Journal des Économistes.

APRIL, 1929. *Le commerce extérieur des principaux pays en* 1928. R. J. PIERRE. *Les allocations familiales, obligatoires et généralisées.* G. DE NOUVION. An important account of this movement and its prospects.

MAY, 1929. *Le monopole de commerce extérieur en Russie sovietique.* S. GARGAS. *Les grands marchés du monde et les routes commerciales.* R. J. PIERRE.

JUNE, 1929. *Le Budget de* 1930. E. PAYEN. *Politique commercial et malaise économique international.* J. BONNET. *Les travaux des Chambres de Commerce françaises.* X.

JULY, 1929. *Le plan Young et les dettes interalliés.* E. PAYEN. *L'Elevage dans le monde.* R. J. PIERRE.

La Musée Social (Brussels).

MARCH, 1929. *Subventions pour familles nombreuses.* A record, and discussion, of old and new methods of subsidy in Belgium.

Révue de l'Institut de Sociologie.

APRIL–JUNE, 1929. *Les débuts du credit industriel moderne.* B. S. CHLEPNER.

Zeitschrift für die gesamte Staatswissenschaft.

86 Band, 3 Heft. *Ostpreussische Wirtschaftsprobleme.* E. SIEHR. On the results of the Versailles Treaty to East Prussia. *Kredit-inflation und Kredit-deflation in Theorie und Praxis.* W. MILDSCHUH. On the special nature of War-inflation. *Lausanner und osterreichische Schule der Nationalökonomie.* H. BAYER. The distinction does not lie in the mathematical method of Lausanne, but in the more complete conception of statistics in the Austrian School. *Die Theorie der Steuerüberwälzung in der neuesten Literatur.* W. TWERDOCHLEBUFF.

87 Band, 1 Heft. *Wirtschaft und Politik im Zeitalter der modernen Kapitalismus.* O. HINTZE. Emphasises their independence, in opposition to Sombart. *Ricardo's "Notes on Malthus."* K. DIEHL. *Der Weltmarkt und die deutsche Ernte.* W. M. VON BISSING. On measures for avoiding the influence on prices of overproduction abroad.

Zeitschrift für Nationalökonomie (Vienna.)

Band 1, Heft 1. This is a new review, dedicated primarily to economic research and statistical theory. It is also intended to publish abstracts of, and comments upon, theoretical articles in the chief economic periodicals. At the end of each number, abstracts in French and English are given of the articles published.

Psychologische Okonomie in Frankreich. M. ROCHE-AGUSSOL. "*Wirtschaft als Leben.*" G. HABERLER. A detailed critique of the writings of Gottl. *Die Elastizität der Nachfrage nach Ersatzgütern.* M. FANNO. Marshall's formula is adapted to this special case. *Das Geldertrags-streben als Organisationsprinzip des Tauschverkehrs.* R. LIEFMANN. A reply to critics, Zwiedineck, Ammon, and Oppenheimer. *Irving Fisher's statistische Methoden für die Bemessung des Grenznutzens.* A. BILIMOVIĆ. It is argued that Fisher's results are imperfect, especially as involving comparison of the utilities of different persons. *Das Zeitmoment in der mathematischen Theorie des wirtschaftlichen Gleichgewichtes.* P. N. ROSENSTEIN-RODAN. It is necessary to introduce time-coefficients between demand and supply. *Kalkulationen und Preisberechnungsmethoden.* L. V. BIRCK. (Translated by C. R. FRIIS.)

Jahrbücher für Nationalökonomie und Statistik.

MAY, 1929. *Kapitalismus: eine begriffliche Studie.* K. MUHS. *Die Lage des deutschen Landwirtschaft.* C. V. DIETZE.

JUNE, 1929. *Internationale Konjunkturzusammenhänge.* DR. A. MÜHLENFELS writes a detailed, entirely theoretical article examining world conjunctures. The analysis is particularly directed towards a possible explanation of the phenomenon. He finds that such factors as harvest fluctuations, sun spots, and

even technical changes and innovations cannot be ranked as real causative factors compared with the influence exerted by ordinary everyday international economic relations. Of these he makes a comprehensive and ingenious analysis by means of which he reaches the conclusion that it is erroneous to think that the increasing economic interlacing of the world entails progressive unification of conjuncture; indeed there are many important tendencies working towards a differentiation of conjuncture experience in the various national economies. These require closer study. *Die Frage des Leistungsprinzipes.* O. CONRAD. *Die Finanzpolitik und das Bundessteuersystem der Vereinigten Staaten von Amerika von* 1789 *bis* 1926. F. MEISEL. *Der Wettbewerb der Verkehrsmittel, mit besonderer Berücksichtigung Deutschlands.* R. HENNIG. *Die Statistik der Umsatzsteuerveranlagung als Erkenntnisquelle fur die Berechnung eines "Index des Massenverbrauchs."* E. LIND.

JULY, 1929. *Die Makute, ein Irrtum der Geldlehre.* A. SOMMER. *Vom Wesen der Finanzwirtschaft.* F. K. MANN. *Die Statistischen Einheiten.* F. ZIZEK.

Archiv für Sozialwissenschaft und Sozialpolitik.

APRIL, 1929. *Die geistesgeschichtlichen grundlagen der anglo-americanischen Weltsuprematie.* DR. SCHULZE-GAEVERNITZ discusses, in a third article, the "economic ethic of capitalism." He denies that such causes as geographical location, size of population, gold holding, war, etc., are decisive for the rise of modern industrial capitalism. Instead he argues the importance of Puritanism, Quakerism, Presbyterianism, and Methodism—for the arch of the capitalist economic order rests on the three pillars of Industry, Frugality, and Honesty. He illustrates this thesis by references from Baxter, Richard Steele, William Penn and others down to the Methodist Josiah Stamp. *Die wirtschaftliche und soziale Lage der Juden in Russland vor und nach der Revolution.* B. BRUTZKUS. *Verbrechertum in Schleswig-Holstein.* F. TÖNNIES. *Die Geschichtsphilosophie Lassalles.* H. SPEIER. *Die Entwicklung der kommunalen Finanzen seit dem Kriegsende.* F. ELSAS.

Schmollers Jahrbuch.

APRIL, 1929. *Der ökonomische Raum für den Handel im Spätmittelalter.* H. BECHTEL. *Die Unternehmerpersönlichkeit in der modernen Volkswirtschaft.* PROF. DEGENFELD-SCHONBURG examines into the modern entrepreneur's personality as affected by contemporary economic movements. He finds that nowadays entrepreneurs and capitalists are becoming increasingly separate; the number of entrepreneurs is declining because of concentration; his importance is also on the wane (even Schumpeter and Sombart recognise this) especially because of State interference and rationalisation—"a rationalised entrepreneur spirit is a contradiction in itself." Yet, so far as giant undertakings really live, they only do so as a result of the mighty personalities of great entrepreneurs. *Uber Entwicklung, Handlung und Führung. Grundbegriffe zu einer praktischen Entwicklungslehre für Kriegswesen und Technik.* E. SCHUMACHER. *Zwei Neuerscheinungen zu Verfassungstheorie und Verfassungsrecht.* J. HASHAGEN.

JUNE, 1929. *Elastizität der Nachfrage.* PROF. O. ENGLÄNDER writes an interesting article on elasticity of demand, including a discussion of its measurement, and ways of deciding the degree of elasticity. The treatment is stimulating, and is not excessively mathematical, but is nevertheless on somewhat orthodox lines. *Mischehen und Ehescheidungen.* R. E. MAY. *Spaniens neueste Wirtschaftspolitik.* E. WEHRLE. *Seele, Geist, und Gruppe.* H. L. STOLTENBERG.

Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte (Stuttgart).

XXI Band, IV Heft. *Haupttatsachen der wirtschaftsgeschichtlichen Entwicklung.* T. MAYER. *Ein 100-jahriges Kartell: Der Neckarsalinenverein.* R. LIEFMANN.

Vierteljahrshefte zur Konjunkturforschung.

Sonderheft 12. *Meteorologische und wirtschaftliche Zyklen. Probleme der Wirtschaftsprognose.* A. L. WAINSTEIN.

Skandinaviska Kreditaktiebolaget.

APRIL, 1929. *Does the Stock Exchange absorb capital?* G. CASSEL.
JULY, 1929. "*Idle*" *Money.* G. CASSEL.

Weltwirtschaftliches Archiv.

JULY, 1929. *Nationalökonomie.* W. SOMBART. *Zur Grundlegung einer Physiologie der Wirtschaft.* R. WILDBRANDT. *Der Florentiner Welthandel des Mittelalters.* R. DAVIDSOHN. This number also contains an Essay by DR. LEONTIEF (in co-operation with others) on the *Statistical Analysis of Supply and Demand*, on the lines of the work of Moore, Schuster, and others, but using a different treatment.

Giornale degli Economisti.

APRIL, 1929. *Ancora due parole sulla rendita del consumatore.* ULISSE GOBBI. The doctrine of consumers' surplus throws no light on the subjective utility derived from consumption, but it affords a useful objective monetary measure of the effects of different prices upon amounts consumed and upon total expenditure. It is specially useful in connection with problems of taxation and monopoly. *Un recentissimo programma socialista di politica agraria.* FABIO LUZZATO. An examination of the agrarian policy of the Bolshevik Government leads to the conclusion that the application of socialist principles to agriculture has, as might be expected, proved a failure. *Il risparmio e le societá anonime in Italia.* R. LEVIS. *Investment Trusts.* M. PAGANO. Both this and the preceding article are devoted to a discussion of the functions of investment trust companies, the institution of which in Italy is advocated. *Il porto di Genova ed il traffico di transito con la Svizzera.* G. KOHLER.

MAY, 1929. *Divisione del lavoro e scambio internazionali.* A. BREGLIA. A criticism of the classical doctrine of comparative costs in international trade. It is contended that this doctrine confuses costs with returns or yields, and that it formulates generalisations which are supposed to be of universal application, but which are only valid under certain specific conditions. *Riflessioni monetarie sulle relazioni annuali pel* 1928 *dei nostri istituti di credito.* ATTILIO

CABIATI. An important conclusion to be drawn from a study of post-war banking in Italy and in other countries is the much greater degree of independence of the credit banks as compared with the Central Bank. Hence the burden of responsibility falling upon the former for the proper conduct of credit policy is greater than it was before the war. Experience has also shown the limitations to the power of the Central Bank to control credit by manipulating the discount rate, and the need for having recourse to other methods—*e.g.* open market operations and the holding of assets in foreign centres. *L'economia italiana nel* 1928. PROF. G. DEL VECCHIO discusses the annual report of the President of the Bank of Italy and concludes that purely monetary forces have largely ceased to have predominant influence on the Italian monetary situation. *La granicoltura in Italia.* F. MILONE. An interesting study of the climatic and other conditions governing the cultivation of wheat in Italy. The lowness of the average yield (12·41 quintals per hectare in 1925–28) is largely due to the enormous area of land under wheat including much that is ill-suited to this crop. Italy would benefit by a greater diversity of agricultural products and by confining wheat growing to those parts of the country in which soil, climate, and labour conditions are specially adapted to its cultivation. *Il porto di Genova ed il traffico di transito con la Svizzera.* G. KOHLER.

La Riforma Sociale.

MARCH–APRIL, 1929. *Sul valore internazionale.* A. LORIA. A brief note in criticism of a proposition in regard to the theory of exchange in international trade, sponsored by Pareto and Prof. Cabiati. *Gli effetti della variazione del valore della moneta sui tributi.* F. A. RÉPACI. Changes in price levels result not merely in the direct imposition of financial burdens upon different sections of the community, but also modify the real burden of the existing tax system. A number of factors influencing the nature and extent of such modifications in the amount and incidence of taxation are discussed. *La Palestina ebraica.* PROF. R. BACCHI gives an interesting and well-documented survey, based in part on personal observation, of the new Jewish settlements in Palestine. He is critical of the policy of the mandatory Power, in particular in regard to taxation and the disposal of Crown lands. While guardedly optimistic as to the future of the Jewish national home, he points out that "Palestine is a very small country, poorly provided with national resources, which even in its greatest days has only supported a very restricted population. The importance which Palestine has enjoyed during thousands of years has been out of all proportion to its size, its wealth, and its population." *Acquisti arate e risparmio.* G. SACERDOTE-IACHIA. The instalment system encourages rash and unwise purchases by the facility with which contracts can light-heartedly be entered into. In the long run this system ministers chiefly to the prodigal side of human nature and weakens the opportunities and incentives for saving. *Sulla attendibilita delle nostre statistiche di esportazione tessile.* E. ROSASCO.

MAY–JUNE, 1929. *In memoria di Alfred Geisser.* LA RIFORMA SOCIALI. *Costi comparati e valore internazionale.* PROF. A. CABIATI replies to Prof. Loria's criticism in the preceding Number.

Di alcuni effetti dell' estinzione del debbito pubblico mediante un imposta sul capitale. M. FASIANI. The Colwyn Committee's conclusion, that the actual saving in annual taxation resulting from a capital levy to wipe out the national debt is much less than the nominal saving, because of the decrease in the volume of taxable wealth, is only true in so far as taxes are imposed on income not on capital. Taxes on capital, *e.g.* death duties, will bring in as much as before because of the correspondingly increased capitalization (assuming the rate of interest is unchanged) of all assessed incomes from capital, which are now subject to a smaller tax per cent. than before. *Del cosidetto prelievo dell' imposta e dei suoi effetti sulla valutazione del reddito e della richezza di un paese.* PROF. L. EINAUDI discusses the nature and significance of taxation in relation to the real income of the individual and to the community, and gives special attention to problems arising out of the existence of a national debt. *La municipalizzazione dei servizi publici nell' ultimo decennio in Italia.* A. SCHIAVI. The writer laments the discouragement to the extension of municipal enterprise in Italy, which has been the rule since 1922. *L'intensità del commercio italiano altraverso le rilevazioni statistiche.* L. FRANCIOSA.

Revista Nacional de Economía.

MAY–JUNE, 1929. *El patrón oro a la luz de la post-guerra.* E. W. KEMMERER. *La técnica del retorno al patrón oro.* G. BERNACER. *Ensayos sobre la organización y desarrollo de la riqueza.* A. DE MIGUEL. *Los problemas técnicos de la agricultura.* J. B. PÉREZ. *La constitución de sociedades y la asociación de capitales.* J. R. ALMANSA. A statistical study of the data of the register of companies.

Metron.

Vol. VII. No. 4. *Une formulation mathématique de la loi de la population.* J. DELEVSKY. *Das Volkseinkommen Alt-Osterreichs und seine Verteilung auf die Nachfolgestaaten.* E. WAIZNER.

Scientia.

JUNE, 1929. *Les voies de communication et le libre échange.* G. RENARD.

De Economist.

MARCH, 1929. *Rente en Verkeer* I. H. W. C. BORDEWIJK. A continuation of the discussion begun in the January number with regard to the application of Böhm-Bawerk's three grounds of interest to the "Robinson Crusoe" economy. *Nederlands aandeel in den handel van Indie* II. G. M. VERRIJN STUART. In continuation of a previous article a discussion of Holland's share of the imports into Dutch India. The Dutch share of imports has declined from 33·2 in 1913 to 17·8 in 1926 (partly due to direct shipment from the country of origin). Europe's share has declined. America and Asia (particularly Japan) have increased their proportion. The figures (when corrected to allow for changed price level) show a large absolute decline in imports from Holland. The position with regard to butter, milk, hardware and textiles is discussed in greater detail. *De gevaren der Engelsche Safeguarding.*

A. A. VAN RHIJN. A review of the history of Safeguarding, regarded as a renewed warning to Holland not to follow the same path.

MAY, 1929. *Suriname's economische vooruitzichten.* J. C. KIELSTRA. A rather pessimistic discussion of the economic prospects of Dutch Guiana. Its geographical position is unfavourable; it has no special products and it must therefore compete in the world market on unfavourable terms. Capital is holding back, and in consequence the colony is kept to a primitive level of agriculture. The possibilities of cultivating for export is discussed. There has been an increase in recent years in rice and maize. So far as practicable, the investment of capital in Dutch Guiana should be encouraged. *Rente en Verkeer* II. H. W. C. BORDEWIJK. A continuation of the discussion provoked by Mr. Morreau's article as to the applicability of Böhm-Bawerk's three grounds for interest to the case of the "Robinson Crusoe" economy. The present instalment is devoted to the third ground. There follows a discussion of interest in the Socialist state. As against Mr. Morreau's view that interest is a phenomenon which emerges from exchange, it is contended that Interest is a category "given with man," independent of exchange, like economic value itself. *Nederland's aandeel in den handel van Indie* III. G. M. VERRIJN STUART. A continuation of the articles on Holland's share of East Indian trade, with special reference to textiles and the consequences of Japanese competition. There follows a discussion of the question how Holland's position in the Indian market can be improved. It must be recognised that a part of the field is wholly lost for the European producer. Tariff remedies (including the possibility of differential duties) are discussed. The true solution lies along two lines: (i) Dutch industry requires to be kept better informed of changing conditions and better representation is necessary in the East Indies; and (ii) export industries must not be hampered by too strict application of social legislation.

JUNE, 1929. *De Controverse Clark-Van-den-Tempel.* O. BAKKER. A defence of Clark against criticisms advanced by Dr. Van den Tempel in his book *Macht en Economische Wet.* The discussion is chiefly devoted (i) to the nature of the net product and Clark's treatment of the Law of Diminishing Returns; and (ii) to the relation between wages and the net final product. *Het Russische Rationalisatierapport.* J. J. BOASSON. A commentary on the Report on "The Rationalisation of the Industry of the U.S.S.R.," which appeared in August, 1928.

NEW BOOKS

British.

ANDERSON (G.). Fixation of Wages in Australia. Melbourne and London: Macmillan. 8½". Pp. 568. 21*s*.

BRAYNE (F. L.). The Remaking of Village India. Being the second edition of "Village Uplift in India." H. Milford. 7¼". Pp. 262. 5*s*.

Brayne (F. L.). Socrates in an Indian Village. H. Milford. $8\frac{1}{2}''$. Pp. 130. 7*s*. 6*d*.

Canney (E. E.). Lancashire Betrayed. Essays on Cotton Trade Politics. Manchester: John Heywood, Ltd. $8\frac{1}{2}''$. Pp. 127. 3*s*. 6*d*.

Carter (S.). Commerce: an introductory study. Oxford Univ. Press. $7\frac{1}{4}''$. Pp. 254. 3*s*. 6*d*.

Crick (W. F.). The Economics of Instalment Trading and Hire-purchase. Pitman. $8\frac{1}{2}''$. Pp. 128. 5*s*.

Dalton (H.). Principles of Public Finance. Fifth edition. Routledge. $7\frac{1}{4}''$. Pp. 297. 5*s*.

Einzig (P.). International Gold Movements. Macmillan. $8\frac{1}{2}''$. Pp. 114. 6*s*.

Greenwood (A.). The Labour Outlook. Chapman & Hall. $7\frac{1}{4}''$. Pp. 246. 5*s*.

Hewitt (H. J.). Mediaeval Cheshire. An economic and social history of Cheshire in the reigns of the three Edwards. Manchester Univ. Press. $8\frac{1}{2}''$. Pp. 212. 21*s*.

Holsinger (F. E.). The Mystery of the Trade Depression. P. S. King. $8\frac{1}{2}''$. Pp. 360. 7*s*. 6*d*.

Jones (R. W.). Bankers and the Property Statutes of 1925 and 1926. Pitman. $8\frac{1}{4}''$. Pp. 182. 6*s*.

Keynes (J. M.) and Henderson (H. D.). Can Lloyd George do it? An examination of the Liberal pledge. The Nation & Athenaeum. $9''$. Pp. 44. 6*d*.

Laird (J.). The Idea of Value. Cambridge Univ. Press. $8\frac{3}{4}''$. Pp. 384. 18*s*.

Martin (P. W.). Unemployment and Purchasing Power. P. S. King. $7\frac{1}{4}''$. Pp. 85. 4*s*. 6*d*. (cloth).

Peddie (J. T.). The Producers' Case for Monetary Reform. Is Great Britain now a second-rate power? British Economic Federation, Ltd. $8\frac{1}{2}''$. Pp. 33. 6*d*.

Pigou (A. C.). Industrial Fluctuations. Second edition. Macmillan. $7\frac{1}{2}''$. Pp. 425. 25*s*.

Rühle (O.). Karl Marx: his Life and Work. Translated by E. and C. Paul. Allen and Unwin. Pp. 419. 15*s*.

Smith (N. S.). Economic Control. Australian Experiments in "Rationalisation" and "Safeguarding." P. S. King. $8\frac{1}{2}''$. Pp. 306. 15*s*.

Sugg (A. G.). The Arithmetic and Practice of the Foreign Exchanges. Pitman. $8\frac{1}{2}''$. Pp. 114. 3*s*. 6*d*.

The Statesman's Year-book. *Statistical and historical annual of the States of the World for the year 1929. Edited by* M. Epstein. Macmillan. $7''$. Pp. 1448. 20*s*.

Tranter (A. V.). Evasion in Taxation. Routledge. $7\frac{1}{4}''$. Pp. 197. 6*s*.

American.

American Federation of Labor. Trade Unions Study Unemployment. Washington: Amer. Fed. of Labor. $7''$. Pp. 167. 35 *cts*.

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COMSTOCK (A.). Taxation in the Modern State. New York & London: Longmans, Green. 7½". Pp. 240. 10*s*. 6*d*.

FISHER (I.). The Money Illusion. New York (London: Allen & Unwin). 7½". Pp. 245. 7*s*. 6*d*.

GEE (W.) (Ed.). Research in the Social Sciences: its Fundamental Methods and Objectives, by R. E. Park, A. A. Young, C. Wissler, R. E. Chaddock, R. S. Woodworth, R. Pound, A. M. Sclesinger, J. Dewey, C. A. Beard. New York & London: Macmillan. 7¾". Pp. 305. 8*s*. 6*d*.

KELLEY (T. L.). Scientific Method, its Function in Research and in Education. Columbus: Ohio State Univ. Press. 7½". Pp. 195.

LORWIN (L. L.). Labor and Internationalism. New York (London: Allen & Unwin). 7½". Pp. 682. 12*s*. 6*d*. (Institute of Economics Series.)

TANNENBAUM (F.). The Mexican Agrarian Revolution. New York (London: Allen & Unwin). 7½". Pp. 543. 12*s*. 6*d*. (Institute of Economics Series.)

VAN CLEEF (E.). Finland: the response of Finnish life to its geographic environment. Columbus: Ohio State Univ. Press. 8½". Pp. 220.

French.

GLIKSMAN (G.). L'aspect economique de la question juive en Pologne. Paris, Les Éditions Rieder. 10". Pp. xxviii + 197. 25 *fr*.

JEULIN (P.). L'évolution du Port de Nantes. Organisation et trafic depuis les origines. Paris: Les Presses Universitaires de France. 10". Pp. 516. 60 *fr*.

MAUPAS (G.). Le prélèvement sur le capital. Paris: Sirey. 10". Pp. 261. 30 *fr*.

German.

BAYER (H.). Strukturwandlungen der österreichischen Volkswirtschaft nach dem Kriege. Ein Beitrag zur Theorie der Strukturwandlungen. Leipzig & Wien: Deuticke. 10¼". Pp. 176. 12 *m*.

CAHNMANN (W.). Der ökonomische Pessimismus und das Ricardosche System. Halberstadt: Meyer's Buchdruckerei. 9½". Pp. 84.

DIEHL (K.). Die rechtlichen Grundlagen des Kapitalismus. Jena: Fischer. 9½". Pp. 63. (Kieler Vorträge 29.)

HAHN (A.). Geld und Kredit. Neue Folge. Tübingen: Mohr. 9½". Pp. 278. 10.80 *m*.

HEIMANN (E.). Soziale theorie des Kapitalismus. Theorie der Sozialpolitik. Tübingen: Mohr. 9½". Pp. 234. 9 *m*.

HELANDER (S.). Memorandum on Post-War Prospects of Steam Shipping. University of Kiel. 9". Pp. 210.

MICHELS (R.). Der Patriotismus. Prolegomena zu seiner soziologischen Analyse. Munich: Duncker & Humblot. 9". Pp. 269. 8.50 *m*.

RÖPKE (W.). Finanzwissenschaft. Berlin: Spaeth & Linde. 10¾". Pp. 149. 6 *m*.

SCHINDLER (R.). Das Problem der Berufsauslese für die Industrie. Jena: Fischer. 8″. Pp. 62. 7.50 *m.*

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JOINT STOCK COMPANIES AND THE RISK FACTOR

THE purpose of this inquiry was to find what evidence the history of Joint Stock Companies could give in relation to the origin of what is now called rationalisation. It is generally held that a new and broad impulse in this direction began about the end of last century, and was due to the excessive costs and risks of independent enterprise. The contribution to this argument of our company reports and statistics does not appear to have been made.

When all the available official data are collected there are still large gaps. Except for the small and relatively decreasing Court liquidations, there are no collected public figures of liquidations before the year 1891. No systematic return of companies operating goes further back than 1883. Indications of the conditions before these dates have to be collected from the Registrar's evidence to Select Committees, and from other intermittent sources.

Two methods were adopted in this investigation, both of which involved the supplementing of existing data. First, we can find out something about risks by taking all the companies that were formed in a particular year, and finding their rate of survival at different intervals. This has been done for the year 1880, and tests have been applied to the sample. Second, we can find the percentage of liquidations to operating companies year by year, and for this purpose the annual total of liquidations had to be carried further back by search of the *Gazette*. A percentage can be got since 1883.

The course of the inquiry showed that, within the total of liquidations, there were differences in kind, which implied different degrees of risk and loss, and in order to study their relative importance the ascertainment of the number and classification of liquidations was carried back to 1870. For recent years the figures of Mr. Seyd were available.

Before the War, the annual Reports under the Act of 1890 were very full, and certain official estimates of the cost of insolvency were made, which have been brought into the account.

The influence of legislation on the company statistics has to be kept in view, and appreciably affects some conclusions. I have to acknowledge the generous help of the Registrar in enabling the researches to be carried out and checked, though I am entirely responsible for the argument, which is based on London registrations.

I

Marshall quotes a statement of Leroy-Beaulieu that "out of every hundred businesses that are started, twenty disappear almost at once, fifty or sixty vegetate, and only ten or fifteen are successful." [1] In fact, this statement is expressly limited by Leroy-Beaulieu to retail businesses (*débitants*); and, in any case, he offers no evidence for it. It is an *obiter dictum*, but apt to pass by repetition for an established estimate.

In the theory of the representative firm, it is required that it shall have had "a fairly long life, and fair success." What is a fairly long life for a modern business?

It seemed desirable to find a basis in fact for general propositions of this kind, and this called for an investigation into the vital statistics of businesses. For this purpose, the available evidence in England is that afforded by Joint Stock Companies.

There exists a Return made in 1864 [2] of all companies formed under the Joint Stock Acts from their commencement, and showing for a period of about seven years the figures of survival and liquidation. When the tables for England are summarised, it appears that 84 per cent. survived the first year, 73 per cent. the second, 70 per cent. the third, 63 per cent. the fourth, while about 46 per cent. survived the seventh year. There also exists a Return made by the Registrar to the Select Committee of 1867, giving even higher figures of survival; for example, 80 per cent. of the companies registered in 1862 are shown as still operating in March 1867.

These Returns cover too short a period, but they are vitiated by another fact. There is a form of enterprise which is from the outset of our records described as "abortive." Companies are registered which never get to work at all. Before the year 1880,

[1] *Principles*, p. 622 *n*. [2] No. 452.

a company could only go off the register by formal liquidation. Abortive companies did not take this trouble; they remained on the register, and failed to make the annual returns required by the law. There are penalties for such default, but the Registrar could not proceed to exact them unless the common informer took the initiative. By the Act of 1880, the Registrar was given power, after inquiry, to dissolve such companies. Till then they inflate the statistics, and it is no small inflation. For example, in the year 1877, when the total number of companies was about 7,000, there were 2,750 on the register which had made no returns for seven years, and many more which had defaulted for three, four or five years. In the same year the nominal capital of abortive companies was given to the Committee of that year as 539 millions, against 705 millions in going companies. Attention to the Act of 1880 is necessary to avoid pitfalls in the interpretation of our company statistics.

It was necessary to undertake a new inquiry, and this was done for all the companies registered in the year 1880 which had a share capital, 1,162 in number. This would give a run of nearly fifty years, long enough to give a figure for "success." It also enables "abortive" enterprise to be picked out in the files, since these cases are shown, after 1880, as dissolved under the Act. The inquiry has, of course, been very laborious.

To explain the table which follows, some further reference must be made to Company Law. A company may come to an end (*a*) by dissolution as abortive, meaning that it does not operate at all, and in most cases never proceeds to allotment, (*b*) by compulsory liquidation, under order of the Court, (*c*) by voluntary liquidation. But under (*c*) there are included cases of differing significance. Voluntary winding-up may take place either "because it is proved to the satisfaction of the shareholders that the company cannot, on account of its liabilities, continue in business," which means that it is in effect bankrupt; or for the purpose of reconstruction, in which case a new company takes the place of the old, with a new registration; or for the purpose of amalgamation with another company; while the rest are simply voluntary liquidations, some because the company has fulfilled the purpose for which it was started (a very rare type), but the majority because the prospects are, on one ground or another, unfavourable. The study of winding-up resolutions is one of great interest. It enables some classification to be made of the forms of enterprise. In the following table the methods of liquidation have therefore been given separately.

Companies registered with share capital in London in 1880 (to July 1929).
Total = 1162.
Abortive = 296. Wound-up for amalgamation = 54. Transferred to public authorities = 5. Information inadequate = 27.
Failed = 654. Still operating = 126.

Liquidation of Failures.

Duration, years.	Compulsory.	Liabilities.	Other.	All.
Less than 1 . .	12	13	35	60
1 ,, ,, 2 . .	18	26	40	84
2 ,, ,, 5 . .	31	67	82	180
5 ,, ,, 10 . .	19	29	75	123
10 ,, ,, 15 . .	4	17	38	59
15 ,, ,, 20 . .	—	7	34	41
20 ,, ,, 30 . .	—	7	53	60
30 ,, ,, 40 . .	—	6	22	28
40 ,, ,, 49 . .	—	5	14	19
Total . . .	84	177	393	654
Average duration .	3·7	7·8	11·8	10·7

This table is not seriously affected by re-registrations, 47 in number, the great majority of these being banks which were subsequently amalgamated, and are therefore omitted; a smaller group of public utility re-registrations is also omitted. There were only 8 reconstructive registrations, some of which were clearly fresh starts. Conversion of family businesses into companies was a later development, facilitated especially by the Act of 1900, though referred to as a growing practice by the Committee of 1895. Most businesses start on *some* previous basis, making a new organisation and goodwill. I am satisfied, by inspection, that the table represents "lifetime" as it ought to be understood.

As regards abortive companies, the record is closed. It is probable that this is also the case with regard to the compulsory liquidations. The formal *dissolution* of these companies may be delayed for as much as a generation, as the public statistics show; but the winding-up Order terminates their operating life. As is shown later, the average lifetime of this sample agrees, as regards compulsory liquidations, with later data, and with what is known of the kind of enterprise which, speaking broadly, they represent. The record is not closed for voluntary liquidations, and the figures of average lifetime are strictly valid only for comparison.

Bringing these results into relation with the statement of Leroy-Beaulieu, or rather the rendering of it by other writers, we have the following summary table for an estimate of success. As he mentions businesses "which are started," the table is given both inclusive and exclusive of abortive enterprise. It is obviously necessary to exclude liquidations for the purpose of amalgamation. But reconstructive liquidations should be retained, partly because a large proportion of these take place at a loss, but in any case because they imply that the prospects of the enterprise in its original form were bad, and this differs in no way from ordinary liquidation.

Period.	Percentage Survival of		No. of Companies.
	1,076 Registered Companies.	780 Operating Companies.	
One year . .	67	92	720
2 years . .	59	81	636
5 ,, . .	42	58	456
10 ,, . .	31	43	333
20 ,, . .	22	30	233
30 ,, . .	16	22	173
40 ,, . .	13·5	18·5	145
49 ,, . .	11·7	16·2	126

If, therefore, only "10 or 15" per cent. are successful, forty years is the measure of success for all registered companies and about fifty years for operating companies. If 20 per cent. disappeared "almost at once," this means less than a year for all companies, and within two years for operating companies.

If the 126 companies still at work in July 1929 last on an average for twenty years more, the average life of all the companies formed in 1880, exclusive of amalgamated companies, will have been fifteen years; if for an average of thirty years more, the average lifetime will have been sixteen years, and this is probably an outside figure. For the operating companies, the average duration will be twenty and twenty-two years respectively.

No result could have been got except by starting at a date early enough to give a long run, but of course a large proportion of the companies of 1880 have been subject to the economic influences of quite recent times. In order to test the 1880 sample, for the early and final years of survival, a more general search was made of the registers in respect of companies started in 1865, 1870 and 1875. The results were:

Survival of all Companies Registered.

Year of registration.	No. of Companies	Operative in			
		1870.	1875.	1880.	1929.
1865 . .	936	413	294	250	67
1870 . .	541	—	241	159	—
1875 . .	1078	—	—	—	125

For comparison with the companies of 1880, it was necessary to include the 54 cases of amalgamating liquidations, most of which are in later years,[1] with the following result:

Percentage survival at years

	5.	10.	15.	49.	54.	64.
1880 . .	44	34	27	11·1	—	—
Other . .	44	31	27	—	11·6	7·2

Finally, on this aspect, one other piece of evidence is available, which tends to show that, when all registrations are considered together, the high mortality of early years is becoming less. The Registrar put in to the Committee of 1895 a Return of the survival of companies registered in 1890. Of these there were operating in the beginning of 1895, an average survival of about four years and a half, 54 per cent., an increase of 10 per cent. on the above results. Prices were falling much more rapidly in the early 'eighties than in the early 'nineties, but there is no short correlation between prices and liquidations generally since 1870.

These results, laboriously as they have had to be obtained, can only be a tentative contribution to the question, but they afford at least some basis of reference. Some further comment may be offered on particular aspects.

About a quarter of all company formations were abortive; nearly all of these ceased making returns in the first year. Usually they did not get their capital. At this date there was no Share Capital Duty on registration, and flotations were attempted on all sorts of ideas, either not bright enough or too bright; for example, the Cash Expenditure Repayment Trust, Ltd. No doubt they represent a factor in enterprise as a whole, an aspect of "stimulus" in industry. Their figure indicates the waste with which the successful ideas are produced, the wide field within which natural selection works. And this factor in enter-

[1] The average duration of companies of 1880 liquidated for amalgamation to date is eighteen years.

prise is a continuing one; in the decade 1893 to 1902 about 11,000 abortive companies were dissolved, and about 16,000 from 1902 to 1913, which are about 30 and 27 per cent. respectively of all the companies registered in these periods. The ratio in recent years is about a quarter.

Speaking broadly, the 84 companies wound up by order of the Court represent a different factor. Their short run of average life is not peculiar to the companies of 1880. The ample pre-war Reports (under the Winding-up Act of 1890) give details of these companies which show that, of companies registered since 1862, and compulsorily wound up between 1891 and 1913, the average life was 3·9 years, with great steadiness in the annual average. From 1862 to 1913 gives about the same run of time as from 1880 to 1929. What type of enterprise (speaking broadly) do these cases imply? Commenting, in his first Report, on their short duration, the Registrar states that this fact "excludes the idea that failure was due to the ordinary misfortunes incidental to a trading business. Such misfortunes, even when accompanied by grave mismanagement, almost invariably require a longer time for their *dénouement*. . . . The causes of failure must therefore be sought for in other directions. . . . It would be difficult, if not an impossible task, to select out of the whole number of cases wound up during the year (1891) a single case in which it could be said that the objects of the company were reasonable, that its promotion and management were honest, and that its failure was due chiefly to misfortune. On the contrary, it would be easy to show as regards the vast majority that they were formed either fraudulently, or for the purpose of promoting objects which were illusory, or that their management was characterised by breach of trust, or entire ignorance and incompetence." This kind of failure represents, then, a large degree of what Marshall called the personal risks. At a remove from the production of goods is that production of paper values which Veblen regarded as the type of enterprise. It is not the type, and the evidence is that the economic environment finds it out more quickly than before. The proportion of these companies which are wound up within three years is, for companies formed in 1880, about one-half; for those wound up from 1891 to 1913, calling the date of registration x, only 35 per cent. existed at the end of $(x + 3)$, 20 per cent. at the end of $(x + 5)$, and 8 per cent. at the end of $(x + 10)$. Further, while liquidations of this kind averaged a quarter of all liquidations from 1870 to 1884, they were only 6 per cent. from 1904 to 1913, and about 8 per cent. since 1918.

It is not so easy to decide whether, between these last cases and the general voluntary liquidations, there is any special meaning in the voluntary liquidations which take place on account of definite failure to meet liabilities. One would expect that, for enterprise of the same quality, those businesses which have gone on until overtaken by their liabilities would on the average last longer than those which were wound up in anticipation of this result. But in this sample they have a much shorter average life. It would affect any conclusions which might be drawn from the mere numbers of failures over a period of time if, within the total figures, this class of failures were increasing to any important degree. There is some increase over a long period. The proportion of voluntary liquidations which took place through inability to meet liabilities was 32 per cent. for 1870–79, 35 per cent. for 1880–90, 35 per cent. for 1896–1905, and 44 per cent. for 1906–13. Since 1921 it is in the neighbourhood of 50 per cent.[1] If the relative figures of the 1880 sample were roughly representative, 7·8 years for these cases against 11·7 for other voluntary liquidations, this influence would be tending to shorten the lifetime of companies. If we reject as unlikely the interpretation that the increase in this kind of failure is due to a decrease in the quality of management, the other interpretation is that the enterprise of independent companies has been recently more liable to fail through influences acting suddenly, and not capable of being foreseen. This is what is held by the amalgamationists and rationalisers.

II

A mortality of 57 per cent. of operating companies within ten years is a heavy charge, even if the industrial system has become accustomed to losses of this magnitude. There have not hitherto been data with which to obtain a long view of the progress of risks, or to test the statement of Marshall, that "the risks of trade are on the whole diminishing rather than increasing."[2] This statement appears unchanged from the first to the last edition of the *Principles*, with the proviso "as we shall presently see." At the date of the first edition there were, except for the small number of Chancery cases, no collected public statistics of liquidations in this country, and those which now exist begin with the year 1891. It is so desirable to know more about this

[1] Complete figures since 1896 are those of Mr. Seyd, for the United Kingdom. My own figures are appended.

[2] *Principles*, p. 621.

subject that I have carried back to 1870, by search of the *Gazette*, the facts as to number and classification of liquidations. The numbers are in some ways a better index than the sums of money involved, since the latter are unduly influenced in certain years by a small number of large failures, while the former indicate the spread of the influence of the conjuncture. The liquidation figures can be used for correlation with other data since 1870, but it is more important to use the percentage of liquidations, which is only available since 1883,[1] the first year in which we know accurately the number of companies on the register. The numbers and percentages will not do more than show a tendency from year to year, and the latter are not the rate of financial risk. If, however, we know from other sources what the financial loss was at any time, in relation to the operating capital, we can refer the percentage of failures to this figure, and make some tentative estimate of the burden to industry and the nation at other dates. Anyone who has had to examine company statistics carefully realises the difficulties, but at least the draft of an argument seems to be possible.

The percentage of companies entering on liquidation for all reasons, to the companies subject to the risk in each year,[2] is as follows :

1883	7·0	1895	5·8	1905	4·6	1920	4·4
5	6·4	6	6·3	6	4·5	1	3·9
7	6·6	7	7·0	7	4·5	2	3·6
8	6·5	8	7·2	8	5·0	3	3·4
9	6·5	9	6·7	9	4·4	4	3·3
1890	6·3	1900	6·4	1910	4·0	5	3·1
1	6·2	1	5·5	11	4·1	6	2·9
2	6·8	2	5·2	12	3·9	7	2·8
3	6·1	3	4·8	13	3·4	8	3·1
4	5·8	4	4·6				

A general pre-war downward trend was notably broken in the years of activity at the end of last century. In these years there was a sharp rise in company liquidations entered into for the sake of amalgamation or reconstruction. These accounted for over 20 per cent. of all the liquidations in 1896 and 1898, and for only 8 per cent. in 1913. But even when all the amalgamations, and reconstructions not made at a loss, are deducted, there was a rise in the rate of failure, and it seems probable that many short-lived companies were floated at this time.[3] On the whole, these figures

[1] C. 3542. [2] This figure has been adjusted for mid-year.

[3] Comparing *Gazette* figures with the special return for 1896, about 40 per cent. of reconstructions in that year were made at a loss.

show a decline in the rate of failures of a substantial amount, and this tendency was resumed after 1920.[1] Though amalgamations were, even at the highest, a small proportion of liquidations, it is open to argue that their influence was among the factors which reduced the rate of failure in the decades before and after the War. I do not think, however, that they were a large enough factor nearly to account for a fall in the liquidation rate from 6·2 for the decade 1893 to 1902, to 4·3 from 1903 to 1913. Bankruptcy figures were also falling.

But if the evidence goes to justify Marshall's view, expressed before there was any significant tendency towards combination, that trade risks were declining, yet what kind of financial result corresponds to a given rate of liquidation? What the rationalisers have held is that the money burden behind a liquidation rate of 4 per cent. was unreasonably heavy for industry and the nation, and creates too large a margin between pure and gross interest. Is it possible to indicate the kind of financial figure which is behind this?

Some partial estimates have been made. The Registrar calculated for 1891 a total loss of 36 millions, or 20 millions exclusive of vendors; for 1892 the latter figure was 25 millions. A special return to the House of Commons in 1899 gave for the year 1896 a known total loss of 15 millions, which with allowance for the unknown cases would be about 21 millions.[2] A more comprehensive analysis was given for the decade 1893 to 1902.[3] Under the Act of 1890 the Board of Trade has financial information of the details of companies voluntarily wound up, if the liquidation takes more than a year. This, together with the information necessarily supplied by compulsory liquidations, gave a sample of about half of all the 15,000 cases of the decade. On this basis the losses were, in thousand of pounds :

Vendors	180,000
Public :	
Shareholders	165,000
Creditors	38,000–203,000

According to the allowance made for the real value of vendors' capital, the annual loss would be from 25 to 30 millions a year.

The paid-up capital involved was 560 millions, about equally divided between vendors and the public. The fact that vendors'

[1] The post-war figures evidently call for further investigation.

[2] No. 328 of 1899.

[3] No. 291 of 1903. I have corrected an error in tabulation of the results.

capital may have been sold to the public would not matter in the national account. The percentage loss on all the capital is the same, and the average loss to shareholders of 35 millions is to be reckoned against the average paid-up capital of registered operating companies for the decade, which was 1,229 millions. The average capital at risk was 1,285 millions, and the average loss was 2·7 per cent. of this.

In this decade the average real rate of return on Consols was 2·6 per cent. This may provisionally be called pure interest. So far as these data enable one to offer a figure, the economically necessary rate on company enterprise was not below 5¼ per cent., with some addition for uncertainty, and gross interest was twice pure interest. If, conscious of the difficulties of going far from one's base, a figure is tentatively offered for the years 1903 to 1913, allowing for the rise in the real return on Consols to 3·4, and of the fall in the index of liquidations, this figure would again be about 5¼ per cent. (plus uncertainty), and gross interest would be 1½ times pure interest. One might venture a pre-war economic rate on company investment of about 6 per cent.

Of the real annual losses by insolvency in 1893–1902, the more certain parts are:

Bankruptcy	9 millions,
Companies	20 millions,

or about 36 millions if vendors' capital is taken at one-third. This was 2 per cent. of the national income, or from 10 to 12 per cent. of the national savings of that time.

III

The last aspect of the question concerns the inferences which may be drawn from the returns of companies by size, as tested by paid-up capital. Since the Acts of 1867 and 1877 it has been legal for both nominal and paid-up capital to be increased or diminished, and the record of companies is kept up to date in that respect. We know, from company statistics, the total and average paid-up capital in 1885, and from 1887 onwards. Earlier history must be collected from various sources. The return of 1864, our first important source of official information, can be made to give an approximate figure for that year of about £20,000. But a startling result is got from the return of all cases wound up by the Court from 1862 to 1868, showing an average paid-up capital of £70,000.[1] This is a bad sample, because the

[1] No. 104 of 1869.

smash of 1866 was responsible for the failure of large financial concerns; when these and some large Parliamentary companies are taken out, the average figure is about £40,000. Next is the estimate given in 1877 by the Registrar to the Committee of that year; about 7,000 going companies had an average paid-up capital of about £45,000. Then the Parliamentary return of 1883 gives an average of £53,000, and we join on to the first regular return of 1885 with £54,000.

The average paid-up capital increased until 1892, when it reached a maximum of £64,000, since when it showed a steady decline to £40,000 in 1913. It is, even at post-war prices, still under £50,000, the figure of 1905.

These capitalisations are for the unit of enterprise, allowing for all amalgamations. Scale of production depends rather on the unit of process, or establishment; and, while an increase in the unit of enterprise does not necessarily mean an increase in the unit of process, it is very likely that these vary in the same way. In any case, a reduction in the unit of enterprise is very unlikely to imply anything but a reduction in the unit of process. Further, even when the effect of invention is allowed for, it is very likely that a continuous reduction in paid-up capitalisation involves a reduction in scale on the average however computed.

The reduction in average capitalisation has no relation to the movement of prices. It may have been affected somewhat (I am informed that it has) by the increase in Share Capital Duty from 2*s.* per cent. to £1 per cent. between 1889 and the War; though this is more likely to have affected the nominal than the paid-up capital registered.

The proposition that an increase in the volume of production means an increase in the representative business would almost certainly imply an increase in the average; there would be an increase in the average plus some other fact of the distribution, but certainly an increase in the average. Therefore, in relation to general theoretical propositions, the company figures require interpretation.

The high average figures reached between 1887 and 1894 are probably due to the legislation of 1880, which gave the Registrar power to strike abortive companies off the list. It must have taken time to overtake the arrears, and in fact most of the abortive companies of the year 1880 were struck off in 1887. The removal of numerous companies with very small paid-up capitals must have put up the average for some time, until an adjustment with the annual inflow was reached. A due allowance for this

fact would at any rate flatten down the figures of the 'eighties and early 'nineties. And, as there was great irregularity in the number of abortive companies struck off after 1896, some influence of this kind may persist. But every allowance for it, and it must be less against an increasing total of companies, still leaves a substantial decrease of capital to explain.

The total of companies registered is a complex continually changed by new industries, so that, just as Marshall insisted that the history of an industry was not like that of an individual company, the total of companies is not like the history of any industry. A stage comes, as he pointed out, in many industries, when a large capitalisation is needed for a fair start. But change in the constitution of industry as a whole keeps the door open for companies of at first small size.

Again, many relatively small businesses are operated with high efficiency, and it is of interest to observe that Newmarch, in his evidence to the Committee of 1877, expected that the private company would offer great resistance, for this reason, to the development of the public company. Chadwick agreed with him that the class of persons who put their money into public companies came to be content with conventional rates of dividend, and that "the nearer you approach to the management of a private company, the better." And the disadvantages of private businesses have, in more recent times, been offset by external economics which are well known, apart from the support of trade agreements.

Private companies were recognised by the Act of 1908, but the economic facts existed long before then. In 1890 they were about one-third of all the companies registered, and their average *nominal* capitalisation was about two-fifths that of all companies. According to figures supplied to the Balfour Committee they formed in 1910 about half the register; in 1925 they were about 90 per cent. of it. The legislation of 1900 encouraged formations of this kind by exempting them from certain obligations, as well as conversion of other businesses into this form. But it does not follow that this Act gave any special impulse to the formation of *small* companies, all that is shown being a change of legal form. The legal changes have in fact enabled the detection of a large and increasing group of relatively small companies.

On the return to the Committee of 1895, the survival at about five years of private companies was about ten points per cent. above that of all companies. Discarding legal forms, and taking only the nominal capitalisations of all companies registered in

1890, the five-year survival is only two points per cent. worse for all companies capitalised at over £20,000 than for all companies capitalised at over £100,000.[1]

Now the question here is, how the facts regarding size of companies are related to the results regarding risk of the preceding sections. Whatever the measurable burden of these risks by one test or another, were they so felt by enterprisers as to be the most important explanation of tendencies which began to be considerable at the end of last century? The reply, that comparatively small businesses were of increasing importance and had a high degree of success, would so far negative this conclusion. But if the explanation is probably to be found in changes in the complex of enterprises, always giving a field for the starting of new kinds of industry, this would not negative the conclusion that a stage is reached in the organisation of any industry when external economies cannot offset the uncertainties and secrecies of independent enterprises; in other words, when the economically necessary rate of average return, of which a measure has been attempted for this period, could not be competitively obtained. From the national point of view the word used is rationalisation; from the company point of view it is defence. When we bring into relation with general statements which are widely current, such facts as can be gathered from company statistics and inquiries, we get a measure of loss and cost which, from the former point of view, is very considerable; that, from the latter point of view, the sense of this loss occasioned a new movement to lessen risks is not, as it might seem to be, denied by the persistence of relatively small enterprises.

D. H. MACGREGOR

[1] Registrar's statistics to the Committee.

Note.—The following figures, especially those previous to 1891, are supplied as of possible use to other inquiries.

Liquidations begun.

(*London Gazette* and Judicial Statistics.)

Nov.–Oct.	Compulsory. No.	Compulsory. %.	Voluntary. No.	Voluntary. Liab.	Voluntary. Liab. %.	Voluntary. R.	Voluntary. A.	Total.
1869–70	101		205	40				306
–71	63		171	45				234
–72	57		201	41				258
–73	75		274	57				349
–74	81		313	83				394
–75	138	25	351	118	32	15		489
–76	147		356	129		13		503
–77	119		334	110		19		453
–78	95		371	140		12		466
–79	121		441	203		16		562
–80	127		309	128		13		436
–81	126		389	141				515
–82	134		392	132		16		526
–83	147		442	152		42		589
–84	158		433	193		32		591
–85	117	22	440	173	35	35		557
–86	110		440	174		38		550
–87	129		510	199		39		639
–88	124		539	177		83		663
–89	132		590	176		95	13	722
–90	138		647	192		92	17	785
1891	119		770	253		92	40	889
94	114		883	295		79	21	997
96	86	9	1174	382	30	184	76	1260
98	125		1620	415		283	110	1745
1900	117		1757	581		215	95	1874
06	116		1568	636		101	59	1684
07	108	6	1695	751	40	129	21	1803
13	137		1809	782		89	50	1946

R—For reconstruction.
A—For amalgamation.

A SCEPTICAL VIEW OF THE THEORY OF WAGES

A TRADITIONAL empiricism in Anglo-Saxon countries seems to have given us a bias against those studies of methodology which have held so bold a position among some foreign schools of thought. Usually we are satisfied to put such formal problems behind us with a cursory quotation from Mill, priding ourselves on our faith in common-sense definitions and our devotion to practical results. Our instinct is to be impatient with the critic who says that our theoretical system is "internally inconsistent," and to reply to him: "Surely you do not deny that the theory throws light on practical affairs?" Rather sacrifice logical consistency than wreck a fruit-bearing analysis. Rather run the danger that economic quackery may don the guise of political economy than let a chapter of useful "advice to the Sovereign" pass unhonoured.

Such bluff common-sense is not without its dangers. It may well be a cloak to a laziness of thought which harbours confusion as to what our propositions imply and what our symbols mean. It can often lull us into thinking that we understand the words that we are using when we actually do not—into resting our thought on a number of assumptions which we have not explored and of which we may not even be aware. If, as signs are not altogether lacking, economic science has to-day reached an important turning-point, this neglect of methodology may be an obstacle to advance. At least, the modern tendency to shift our emphasis to applied economics, to free our definitions from dependence on specific philosophical systems and to bring them into line with the phenomena of the market-place, gives a special urgency to the need to reconsider the actual texture of our generalisations.

This traditional neglect of methodology is particularly exemplified in the somewhat vague notions which seem to prevail among us as to the criterion of *adequacy* when applied to an economic theory. And it lulls rather than clarifies thought to reply that a law is a statement of tendency or that a theory is intended to explain. Nor does the statement that a theory is designed to enable us to make a forecast and that its adequacy should be judged to this end take us very far. A result of this

common-sense bias of our text-books against probing the matter further lies in our inclination to be hoodwinked by a truism under the guise of a pretentious formula, or with an air of finality to explain one unknown quantity in terms of another variable that is equally unknown. And nowhere more than in the sphere of distribution in general, and the problem of wages in particular, does a chaos of theories seem to call for some such criterion of adequacy to clear the field.

The most elementary form of generalisation consists of a statement, based on observation or on logical inference, that two variables are related in some manner, but without the relationship being defined. Second in order comes the statement, in the form of a functional equation, which defines the movement of a particular quantity in terms of other variables to which it is related. Third is a group of generalisations which together enable a certain equilibrium to be postulated.

In the lowest rank of this hierarchy our knowledge is confined to the fact that if one of the factors is changed, the other will change also. In the second case the possible range of associated changes is stated for us and at the same time limited: in the language of practice we are told that change in our original variable can be "caused" only by a change in one of the stated factors. The factors in question are shown to constitute a system, in which a change at one point will produce change at some other point. But we do not know more than this: we cannot forecast the *degree* of change in x which will result from a given change in y. In the third case we have a higher order of knowledge. Here, on any given set of assumptions, one can postulate a certain "necessary" equilibrium, and one can postulate the nature and degree of alteration in this equilibrium which a change in the "given" quantities will achieve. Clearly it is to this third order of knowledge that economic theory seeks to attain and to which all propositions in the theory of value claim to attain. For instance, in so far as the theory of money merely connects the value of money with the related factors on which it depends, it falls within the second rank of the hierarchy. But in so far as it claims to foretell the degree of change in the value of money which will ensue from a given alteration in one of the related factors, *e.g.* the quantity of money—as did most of the customary pre-war formulations of the theory—then it clearly aspires to the third rank. And the theory of wages, which is here our immediate concern, certainly claims to be judged adequate in its ability to postulate an equilibrium.

About the precise significance of the term "indeterminate" in economic theory there seems no very settled opinion, and Marshall differs from Edgeworth on the matter, and both of them in turn from Pareto. Less difficulty, however, exists about defining the positive conditions necessary to postulate a determinate equilibrium. Clearly the essential difference which separates cases of our second category from those of the third consists in the fact that the latter consists of statements capable of formulation as a system of differential equations which are capable of *solution*. It is this solution which constitutes the equilibrium, any particular solution depending upon the values assigned to the "constants." Where the equations are not capable of solution, no equilibrium can be postulated, and the knowledge which our theory affords is limited to that in our second category. As Pareto has pointed out, the condition for a system of equations to be solvable is that *the number of equations, or independent known conditions, is equal to the number of unknown variables.* If the number of equations is less than the number of unknowns, then there are insufficient data to provide a solution. If the number of equations is greater than the number of unknowns, there is a state of "over-determination," the significance of which presumably consists in some contradiction in the assumptions adopted or in the fact that one equation is really implied in another, perhaps because of some undiscovered and relevant relation between the constants themselves. To this end the equations must fulfil an important condition of independence: a change in the value assigned to one constant must not affect the form of another equation nor any other constant. Otherwise there would be some significant relationship left out of account: one of the "constants," indeed, would prove not to be a "constant," but itself an unknown variable; and with existing data the equations could not provide a solution.

In the ordinary competitive theory of value the demand and supply curves represent two equations relating demand-price to quantity and supply-price to quantity. In these equations utility and cost respectively figure as constants. Thereby a determinate equilibrium is provided, or a single solution which satisfies the conditions for each of the various possible numbers to be assigned to utility and cost. The condition of adequacy is fulfilled by virtue of an important assumption—the assumption of the *independence* of the supply and demand curves. General equations of prices for commodities in general, with which Pareto and the Lausanne school are concerned, are likewise rendered

determinate on the assumption of the independent existence of two sets of quantities, utilities in consumption and disutilities in production, the pleasures of enjoyment and the pains of effort and sacrifice. Equilibrium is established where the two quantities are equal at the margin of all lines of production. In the theory of distribution an attempt is made to carry over the same method of analysis and to apply it to the price of the factors of production. To take the particular case which interests us here: wages, as the price of labour, are regarded as determined by the conditions of demand and supply, with the condition that in a competitive labour market the demand-price (or marginal net product) and the supply-price will coincide. And here again the implicit assumption of the *independence* of the demand and supply curves is required. By "independence" for this purpose it is necessary to mean that a change in one of them, through its effect on the price of labour or on any other prices, does not thereby produce a change in the other. Any set of values and any combination of sets of values (within reasonable limits) must be able to be assigned to the "constants" which provide the solution to our equations: otherwise a change in one cannot be conceived without some possible related change in another.

An example of where this assumption of independence would not hold in the case of a specific commodity was afforded by Mr. Sraffa in his important article in the ECONOMIC JOURNAL for December 1926 (to which I am personally indebted for providing this present train of thought).

> "If in the production of a particular commodity," he wrote, "a considerable part of a factor is employed, the total amount of which is fixed or can be increased only at a more than proportional cost, a small increase in the production of the commodity will necessitate a more intense utilisation of that factor, and this will affect in the same manner the cost of the commodity in question and the cost of the other commodities into the production of which that factor enters; and since commodities into the production of which a common special factor enters are frequently, to a certain extent, substitutes for one another (for example, various kinds of agricultural produce), the modification in their price will not be without appreciable effects upon demand in the industry concerned."

For instance, if the product in question is wheat in a country where both rye-flour and wheaten-flour are widely consumed, an

increased production of wheat, by transferring land to wheat-production, will raise the rent of rye-land and the cost and price of rye, and thereby, since rye is an important substitute for wheat, will affect the demand-curve for wheat. Another example, more directly relevant to what we are considering, would be an agricultural improvement which lowered the cost of wheat (but not of rye) and extended the area of wheat-production. This, by altering the cost of land available for rye, would affect the cost and price of rye-flour, and thereby would react on the demand-curve for wheat. In the majority of cases, however, where a commodity occupies only a small part of the total supply of the factors of production, while the money spent on it represents only a small part of the total income of the consumers who buy it, reactions of this kind are regarded as being sufficiently small as to be negligible. They are relegated to the category of the "second order of small quantities." The prices of the factors of production on the one hand, and the marginal utility of income to consumers on the other hand, are regarded as being virtually unaffected by the terms of this particular act of exchange; and the assumption of independence, though not precisely true, is held to be true with a sufficient degree of approximation to satisfy both logic and expediency.

In the classical statement of the wages-fund doctrine wages were assumed to be a simple function of the wages fund and the labouring population. In this crude form it was subject to the serious objection that an increased supply of labour, cheapening the price of labour, would tend thereby to cause an increase in the wages fund by making the investment of capital in the employment of labour more profitable than it was before. Hence Dr. Marshall's aphorism that the demand for labour was "not a fund but a flow." In the reconstructed form which the theory assumed towards the end of the century the wages fund was itself regarded as a variable which was related to the investor's sacrifice or abstinence in lending his wealth for the employment of labour. This scale of aversions or sacrifices, unlike the wages fund itself, was regarded as unaffected by the dearness or cheapness of labour, given a certain volume of the national income. Similarly, the supply of labour was related to the disutility involved in work. In a competitive labour market, accordingly, a determinate equilibrium existed, where at the margin the disutility involved in the marginal unit of work supplied (when expressed in money) equalled the disutility involved in the marginal unit of the investors' investments.

Superficially, therefore, the theory of the labour market appears to be as adequate as the theory of a commodity market. Moreover, a particular corollary attaches to the theory of wages which gives to it the most important part of its practical value. This corollary depends on the conception of the wages fund, or the aggregate demand for labour, as being positively correlated with the profit received by the investing class: if profit increases, the supply of capital is likely to increase too. In other words, the wages fund or the demand for labour is regarded as being *elastic;* from which it follows that any increase in the price of labour per unit must *decrease* the earnings of labour *absolutely* (other things being equal), even though it increases them relatively. Conversely, every cheapening of the cost of labour must *increase* aggregate wage-earnings and so benefit capitalists and labourers alike.

But on closer scrutiny the adequacy of this parallel between a labour market and a commodity market proves to be apparent rather than real. Various writers, of course, have pointed out that numerous "constants" in the equation by which the demand for labour is formulated may be affected by changes in wages: for instance, the state of technique and of industrial organisation. But this is not a fundamental inconsistency. The relationship which is indicated (*e.g.* between wage-changes and the stimulation of economies of management) is casual and occasional rather than necessary; and there is nothing inconsistent with logic or even with a considerable range of practice in framing our equations without taking such a relationship into account. But there exists a much more fundamental reason for disputing the assumed independence of the supply and demand curves. In the case of a commodity market, as we have seen, this assumption is justified to the extent that the amount of income spent on the commodity and the amount of the agents of production used in producing it constitute only a small proportion of total income and of the total supply of these agents respectively. In other words, the marginal utility of income both to buyers and sellers can be regarded as unaffected by the price at which exchange takes place and by the volume of such transactions. When labour, however, is being sold, the marginal utility of income, at any rate to the seller, cannot be treated as constant. Since the labourer is propertyless, the sale of his labour will constitute his only source of income, and the terms of the sale will virtually affect his whole position and will be the principal determinant of the labourer's subjective valuation of his own labour in terms

of the income which he secures in return. In other words, a change in the price of labour in either direction is likely to produce a change in the supply-price of labour of a similar kind, thereby creating a tendency for any fall in wages to become cumulative, as in the classic case of sweated trades. If we have here an equilibrium at all, it is unstable rather than stable. The buyer of labour, in so far as he is purchasing a large number of units separately, will not be in the same position. The result of any one transaction concerned with the purchase of a particular unit will not suffice to affect the marginal utility of income to him. But if an employer purchases his labour as a whole by a collective hiring, and to the extent that the employment of labour is his main source of income, every change in the price which he has to pay will suffice materially to affect the marginal utility of income to him.

If this crucial assumption of independence does not hold, then exchange in the labour market ceases to be subject to a determinate equilibrium and is characterised instead by the indeterminateness which is considered to belong to barter transactions. In Dr. Marshall's famous "nuts and apples" example,[1] the actual rate at which the two are bartered cannot be determined, since the initial terms on which exchange takes place will affect the marginal utility of nuts and apples to the respective sellers, and so will affect their respective "offer curves" which represent their future willingness to trade. In these circumstances exchange will continue up to the point where further exchange ceases to afford increased satisfaction to one of the parties—a point lying along a determinate curve which Edgeworth called "the Contract Curve," and which must lie inside the two zero "indifference curves" representing the various rates of exchange that yield no net advantage to the two parties. But the final rate of exchange may be at any point along that curve; and, therefore, as Dr. Marshall has said, while "equilibrium has been attained, it is not *the* equilibrium, but *an* accidental equilibrium . . . it would be an arbitrary equilibrium." Dr. Marshall points out that this indeterminateness would apply to a hundred people bartering nuts and apples as much as to two, and suggests that it is due simply to the absence of money. If apples were sold against money, they would probably represent so small a proportion of the buyers' purchases that their price would leave the marginal utility of money untouched, whereas their direct

[1] *Principles*, App. F.

exchange against nuts, of which the buyer has only a limited supply, does not enable the utility of nuts to be treated as a constant in the same way. Similarly in our case of labour an equilibrium cannot be postulated because labour is not one among many alternative objects of sale and purchase, but is the sole object of exchange in this particular sphere.

But even though the classical conception of a determinate equilibrium of wages may be dethroned, the corollary with regard to aggregate wage-earnings still seems to continue in favour—a corollary now belonging to our second category of knowledge though not to our third and higher category. And this favour it retains for a special and peculiar reason. When with a lowered income the utility of income to the worker increases, he is likely (up to a point at least) to be induced to work harder—to offer more aggregate effort than before. In so far as the changed income he receives reacts on his habits and his conception of conventional necessaries, a secondary effect in the opposite direction will result. A rise of wages may develop new standards and habits which increase his wants and *increase* the utility of income to him; while a fall in wages, by contracting his standards and habits, may decrease his wants and lower the intensity of his desire for income. This secondary effect, however, will probably do little more than retard the operation of the primary effect which we have mentioned. But the case of the capitalists presents an opposite situation. Any change in the bargain between themselves and their labourers, altering the marginal utility of income to them, will affect their willingness to accumulate and invest capital, not in the same, but in the opposite direction. An increase in the marginal utility of income to the worker will *increase* his willingness to work; an increase in the marginal utility of income to the capitalist will *decrease* his willingness to save; and this it will do for the reason that when he invests he is foregoing present wants in return for a future gain, and any increase in the intensity of present wants, by increasing the rate at which he discounts the future, is likely to decrease his willingness to save.

For this reason, the possibility of a change in the labour-bargain reacting on the demand-curve for labour, in the way that it may on the supply-curve, is considered as being very limited. The conception of a demand-curve for labour as independent of the price of labour is still regarded as approximately correct, even while the independence of the supply-curve may be relegated to the limbo of discarded doctrine. And this demand-curve is of

an elastic type, so that the amount of labour which the capitalist is willing to purchase will be larger when wages are low than when they are high. Consequently, while the employer may push down the rate of wages and at the same time increase aggregate profit, the labourers on their side, by pushing the terms of the bargain against the employer, cannot increase the aggregate earnings they receive. The dearer the price of labour, other things being equal, the smaller will both aggregate profits and wage-earnings tend to be; the cheaper the price of labour, the larger the income both of capitalists and workers. An extortionate trade union is more likely to do harm to the future than an extortionate employer.

But this view remains insufficient, if not actually false, until we have taken account of the possible effect of changed income on the habits and conventional standards of the investing class. In the case of wage-earners we have suggested that this relation is probably of secondary importance and does not disturb our initial conclusion that the marginal utility of income varies inversely as the amount of income possessed. In the case of the capitalist, however, this relation between income and habit is likely to be of much greater importance, and probably even is of primary importance. This enhanced importance it will have for the reason that the desire for luxuries is much more influenced by habit, custom and conventional standards than is the desire for necessaries. Consequently, desire for income on the part of the propertied class will contain a conventional element to a very much greater extent than will the desire for income on the part of wage-earners, whose chief expenditure is on essential clothes and food. It seems not improbable that the *major* part of the desire for luxuries (or their utility) is conventional—a point which the late Thorstein Veblen has so cogently argued. The joy in the parlour aspidistra equally with the pride of the society hostess in her diamond tiara seems entirely conventional—can either be æsthetically desired for its own sake alone? Our need for afternoon tea is mainly because others drink it; our desire for a tailored suit is chiefly because it is customary and carries a certain social prestige; the zeal for filling bookshelves with first editions and sideboards with hall-marked silver would undoubtedly be much smaller if these were not considered the "done" thing to do. If we take all such conventional standards as independent "constants" in our equations, no formal difficulty arises, and to this extent the conception of an independent demand-curve for labour remains. The question here is one, not of

logical consistency, but of consistency with practice. In the case of our previous and more fundamental difficulty it was a case of the *logical* inconsistency of treating the marginal utility of income to the worker as a " constant " when the income of the worker was implied in the definition of what the marginal utility of that income was. Here it is a practical question of whether the assumption of conventional standards as independent of the income of the class in question is consistent or not with the actual facts.

If such an assumption is illegitimate, there is no warrant for concluding that a rise in the price of labour, decreasing the profits of the propertied class, will necessarily cause a shrinkage in savings and hence in the wages fund. It may merely cause a revision of conventional standards, diminishing the intensity of desire for present income on the part of those who have a surplus to invest. True, conventional standards, once acquired, impose a severe resistance against any downward revision. It needed the carnage of the Great War to weaken the habit of enjoying the drama in the constricting uniform of a high collar and boiled shirt; and even so reasonable a weakening as this lasted scarcely longer than two years. And the history of aristocracies has shown the universal tendency to carry the challenge of privileged standards up to the very point of revolution. But when the national income is expanding the position is different; and it may well be that if a diminished share accrues to the owners of property, the effect may appear, not in a slackened rate of saving, but merely in privileged standards of consumption, precluded from rapid advancement, remaining on a more modest scale. For instance, there is no warrant for assuming that, if wages had advanced more rapidly over the nineteenth century, our present accumulation of capital would be on a smaller scale. It is at least equally probable that privileged standards of life might have remained more modest and various expenditures, without which our propertied class would to-day think itself miserable, might never have been invented or acquired.

When we are dealing with sectional wage-changes in a particular industry, the conception of an independent demand-curve for labour will probably still hold good. Similarly, the conception of an independent supply-curve will be valid if, but only if, the perfect mobility of labour can be assumed. For a limited period of time the same conception of a demand-curve, elastic in character, may hold for the general wage-level. But it is precisely in the short period, probably extending over some years, that the wages

fund tends to be fairly inelastic, since it is only through the gradual effect on new savings and on the replacement of old capital that the total stock of capital is affected; and a period of time long enough for a change in labour-cost to react on the supply of capital may be too long for us to treat the conventional standards of the investing class as "constants." At any rate when we are considering substantial changes in the wage-level from a long-period view, the conception of an independent demand-curve for labour, equally with that of an independent supply-curve, definitely seems to break down. Neither the "will to work" nor the "will to save" are independent of subjective valuations of income by the parties concerned and of conventional standards; and these in turn are not independent of the way in which income has been distributed by the wage-bargains of the immediate past. To postulate an equilibrium level of wages, relative to which any existing rates can be declared to be "too high" or "too low," is to stride a system of assumptions which can be made consistent neither with one another nor with the facts. It is to fashion an image of a stable equilibrium that is more remote from an original than the now unfashionable wages fund. As in the barter of apples against nuts, the indeterminateness of the wage-bargain will, of course, be contained within certain limits. The bargain must lie somewhere between the zero indifference-curves of the two parties—the curves representing the various rates of exchange at which no net gain at all results from entering into the bargain. Wages, naturally, cannot fall for long below the level of starvation or exhaustion. Even in a classless society, lacking the adornment of a propertied class, wages could not rise beyond the point where they swallowed the national income minus necessary capital accumulation—however "necessary" in this case might be defined. But in our present society, if an upper limit to wages exists below this point, it is due, not to some "natural" law of distribution, but to the existence of leisure-class standards of consumption which brook no interference or revision, and to which society must do homage if the rate of capital accumulation from individualist sources is to be maintained. It is at least significant of the bias of economists that when the wage-level is in question it is the customary standards of the propertied class which are treated as the constant factor and working-class standards of life as adaptable at the behests of a purely text-book "equilibrium." Any payment can be made "residual" if only sufficient other things are treated as "given"! Not the least important among

the inventions and improvements which affect the wage-level in the future may be a growth of collective saving which, in the character of a " leisure-class-saving economy," will tend to increase the share of the national income which the wage-earning class can receive. For the burden of supporting the consumption of a *rentier* class at home, from the standpoint of wage-earners, is in essentials no wit different from the burden of paying tribute to holders of an external debt abroad.

This methodological question must be distinguished from an allied question with which it is often confused. The question whether the level of wages is " natural " or " institutional " is quite distinct from the question whether a " normal " level, in the sense of a stable equilibrium, can be found. In a recent book on *The Control of Wages*, by Professors Hamilton and May, for instance, these two distinct issues seem at times to be confused. The former is a question of whether the " constants " which provide a solution of the equations are values which depend on nature or can be altered at will by the hand of man. The latter is the distinct question whether the equations can be solved at all. Whether the indeterminateness which has been argued is due to an imperfection in our analytical apparatus, which inventiveness may repair, or to the character of the phenomena we seek to handle, I would prefer to leave to the judgment of the mathematician and the methodologist. But it is at any rate possible that our failure to frame satisfactory equations indicates that the deductive method is not so appropriate, at least to the problem of distribution, as we have habitually supposed. Are not the conditions to which Mill's qualifying principle of the composition of causes does not apply precisely those which cannot be expressed in any system of solvable equations?

A final consideration remains which leads us back from the theory of wages to the theory of value in general. If what has been said about the indeterminate character of distribution be true, this may have a not unimportant bearing on the problem of erecting general equations of prices for all commodities. It may well be that just as a determinate equilibrium for wages can only be postulated for particular sectional wage-rates, so a determinate equilibrium can only be postulated for particular commodities in isolation. In this latter case, as we have mentioned above, the postulate of an equilibrium is rendered adequate on the assumption that any reaction of the price on the marginal utility of income to buyer and seller is so small as to be negligible. The price of one commodity is, therefore, determinate on the

assumption that the prices of all other commodities remain constant. As we pass to more important commodities, such as bread in the consumption of the poor, or to larger *groups* of commodities (for instance, the "two commodities, A and B," which figure in Professor Pigou's *Public Finance*), this assumption progressively breaks down. To surmount this difficulty, one has to introduce *general* equations of prices for all commodities, and for this purpose one has to fall back on the two quantities of utility and disutility. By the aid of these two independent quantities it is possible to conceive of a double set of equations for the *aggregate* of commodities, to which particular demand and supply curves for individual commodities can be related. There will then be a general equilibrium of production where utility and disutility at the margin are everywhere equal.

But this retreat only serves us if we can assume these two quantities, utility and disutility, as *independent* quantities. Can one in fact do this? Let us imagine that wants generally increase, and with them the possible satisfaction to be obtained in the aggregate is increased. For instance, new tastes may develop for "talkies" and greyhound racing. If this is so, will not the "sacrifice" involved in working two hours overtime *also* be increased in some degree—the loss of pleasurable leisure will now be more serious than the mere loss of two hours standing listlessly at the corner of the street? In the "sacrifice" involved in "waiting" the point seems even clearer: if the civilised taste for the Riviera had not been developed, the "sacrifice" involved in buying War Loan instead would not be so great as it is. Conversely, will not every considerable cheapening of production in general encourage and develop new wants and so extend the whole utility-curve to a new position? And do we not even in certain quite important cases adjust our demand-curve for a commodity to the price which we already find on the market and to which we have grown accustomed? Indeed, so long as we define "disutility" as a psychic "sacrifice," disutility would seem to be inseparable from "loss of utility" and therefore correlated with utility; and to treat it as an independent "constant" would appear to be logically inconsistent with its definition. If this be the case, what meaning can the statement have that equilibrium is reached where utility and disutility are equal at the margin? What meaning is there in speaking of a determinate point of intersection of two curves when one curve cannot move without producing a related movement in the other? The matter appears to be further complicated when we are regarding

an economic system in which persons who enjoy utilities in consumption partly constitute a distinct class from the persons who suffer the disutilities of production. Under one set of conditions the worker will equate a loaf of bread to a day's labour, under altered circumstances to the labour of an hour. If one is to speak of a general equilibrium where utility and disutility equate at the margin, one must *assume* a certain relationship between the worker's loaf and his labour, which is itself the result of an indeterminate bargain. Had a different bargain, or a different scale of production, been arrived at previously, a different relation between utility and disutility and a different equilibrium might have been established. And it is in this sense that the solution of the problem of distribution is logically prior to the solution of the problem of value.

It is this kind of criticism at which I believe many of the critics of the modern psychological theory of value have been aiming, if a little darkly: for instance, the recently translated critique of Böhm-Bawerk by Bukharin, *The Economic Theory of the Leisure Class*. And it is precisely here, I believe, that modern economic theory, so far as it is a consistent system, proves after all to rest its apex upon a Hedonistic base. If it can borrow from a Hedonistic psychology the conception of two independent quantities of utility and disutility, pleasures and pains, then its system can retain logical consistency. But this implies that "utility" must mean something more fundamental than "desire," and that "disutility" must mean something more fundamental than "sacrifice."

Actually the whole tendency of modern theory is to abandon such psychological conceptions: to make utility and disutility coincident with observed offers on the market; to abandon a "theory of value" in pursuit of a "theory of price." But this is to surrender, not to solve the problem. If he follows this road, the economist may have to abandon his claim to pronounce upon the macroscopic problems of society and to confine himself to the workings of microscopic phenomena; and this would mean that the proud title of *political* economy would come to an end.

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CENTRAL BANKING IN SOUTH AFRICA [1]

Though a country of no great financial development, South Africa is an interesting subject for study from the banking point of view. In some respects she is unique. What other country, for instance, holding less than two million white inhabitants has a Gold Refinery, a branch of the Royal Mint and a Central Bank, in addition to its ordinary apparatus of commercial banks? But then South Africa is the largest gold producer in the world, and it is this fact which has made all the difference.

Disregarding one or two smaller institutions, we may say that there are only three commercial banks in South Africa, all of them with their Head Offices in Europe: two in England, and one in Holland. Occasionally there is some murmuring against this fact. Why, it is asked, should not South Africa have her own banks directed entirely in South Africa? Well, she has had them—the National Bank of the Transvaal Republic, the National Bank of the Orange Free State, the Natal Bank, the Cape of Good Hope Bank, and many others. Some of these banks have been merged in the existing banks and some of them have failed. For some reason or other the purely South African commercial bank—except the two very small banks already referred to—have not survived. South Africa thus contrasts with the other Dominions of the Empire, where locally directed banks flourish.

But the smallness of this number is not due simply to the non-survival of the local banks. It is due also to the process of amalgamation, which has produced the same results in South Africa as elsewhere; something too much of concentration, and a "plentiful lack" of variety. But if the banks are few the branches are many. In fact the opening of branches in a period of boom and rather wild competition was much overdone, and a few years ago the Standard Bank and Barclays Bank by agreement closed their branches in many of the smaller dorps. The present tendency is again towards extension, and one may say that the needs of the public in the matter of branches are very

[1] Read before Section F of the British Association, Johannesburg, August, 1929. The author is Governor of the South African Reserve Bank.

fully met. In 1928 there was one branch or agency for every 2,657 of the white population.

To give some idea of how South African banking operations compare in size with those of Canada, Australasia and Great Britain, the following are the latest figures for deposits for banks in those countries :—

	£
For Canada	450,000,000
,, Australasia	374,000,000
,, Great Britain	2,225,000,000
,, South Africa	98,000,000

Besides the ordinary banks, there are other banks of a kind : first of all the Post Office Savings Banks with deposits of about £6,500,000. There are also some nine private Savings Banks with deposits of about £1,500,000. Then there is the Land Bank, which is really not a bank at all but a well-managed Government institution, established for the purpose of arranging and managing the loans made out of the public purse to the agricultural community. Its capital, *i.e.* the amount of its loans plus the amount of its reserve of £663,000, amounted at 31st December, 1928, to over £11,000,000.

In addition to the banks proper and to so-called banks, there are many institutions which perform quasi-banking functions, such as Building Societies, Boards of Executors, Trust Companies, Municipalities : all of which compete with the banks for deposits, and do a large loan business. Though they are not banks they affect the banking position very considerably, inasmuch as they have what are practically very large banking liabilities. I cannot give exact figures because they appear in no published statistics that I know of, but if I say that these liabilities amount to at least £15,000,000, I think I am under rather than over the mark. Yet these Associations or Companies are not subject to the legislation which affects banks, and so long as they can escape the definition of banks, as given in the Currency and Banking Act, they need not keep the reserves which that Act imposes on banks. In times of difficulty these institutions would have to draw largely on the banks, who at such times ought not to have this extra drain upon them. If a percentage of reserves is statutorily required for one set of cash liabilities, it does not seem wise to leave untouched another set of cash liabilities of an exactly similar kind. Moreover, legislation of this kind is all the more urgently needed when banking functions are being exercised by persons who are not bankers.

There are three "People's Banks" in the Union: (1) Ons Eerste Volksbank in Pretoria, (2) the African Saving and Loan Association, Ltd., in Bloemfontein, and (3) the Orange Free State Teachers' Association Savings and Credit Bank, also in Bloemfontein. The object of these banks is to make small loans on equitable terms to persons who otherwise would be obliged to resort to the professional moneylenders. It is a great pity that there are not more of these genuine "People's Banks" in South Africa. We have had recent legislation dealing with usury, and probably it has borne good fruit. But there is no doubt at all in my mind that the only effective remedy against usury is the positive remedy of "People's Banks."

I have now indicated very briefly something of the banking and quasi-banking institutions of the country as they existed prior to the War and immediately afterwards. But in the year 1920 a great change in the banking system of the country was introduced. A Currency and Banking Act was passed, the most important permanent provision of which was the establishment of a Central Bank, bearing the name of the South African Reserve Bank, of which I have the honour of being the first Governor.

The main provisions of this Act, in non-technical language, were as follows:—

(i) The other banks in the course of a year or two were to cease issuing notes and the Reserve Bank was to be the sole bank-note issuer for the Union for a period of twenty-five years.

(ii) The other banks were to keep 10 per cent. of their demand liabilities and 3 per cent. of their time liabilities on balance with the Reserve Bank. (In the original Act this 10 per cent. was in two years' time to be increased to 13 per cent., but this arrangement was nullified by the Amendment Act of 1923.)

(iii) The other banks had to subscribe up to 50 per cent. of the Reserve Bank's capital of £1,000,000 in proportion to their size as measured by the amount of their paid-up capital and reserve funds.

(iv) The Board of the Bank was to consist of eleven members, viz. the Governor and Deputy Governor, both to be appointed by the Governor-General of the Union, three other members to be appointed by the Governor-General, three members to be appointed by the commercial banks, and three by the stockholders.

(v) The conditions under which notes may be issued conform to the American rather than the English model. Notes have to be covered by not less than 40 per cent. in gold, and the remainder by trade bills. In England, of course, the system is that a certain

amount—called the fiduciary issue—may be covered by securities, and everything above that has to be covered by gold. The English system has been criticised as not allowing room for sufficient expansion. Whereas in South Africa or the United States the Central Bank can issue £100 in notes for every £40 of gold in its possession, in England the Central Bank can issue only £100 in notes for every £100 of gold. As against this it has to be remembered that in the reverse process of contraction the English system has the advantage in that for every £100 of gold withdrawn it has only to withdraw £100 of notes, whereas in South Africa, or the United States, the Central Banks have to withdraw £250 of notes for every £100 of gold withdrawn. The fact of the matter appears to be that for countries which produce large amounts of raw material, such as South Africa and America, and which consequently are liable to require a large increase of currency in the harvesting season, a quickly expanding system is the better, whilst for a country like England, which lays itself open to large and sudden demands for gold, a less elastic system is the better.

(vi) Under the Act the powers of the Bank are very carefully defined, both as to what it may do and as to what it may not do.

Besides issuing notes and discounting three-months trade bills, the Bank is allowed to do none of the main ordinary business of an ordinary banker. It may not make advances upon mortgage of fixed property, it may not allow interest on deposits, it may not grant unsecured overdrafts. It may not make advances on ordinary Stock Exchange securities, nor even on Union Government stock, unless the stock is due to be repaid in a few months' time.

It might be thought that the idea of the framers of the Act was to make the Bank a Central Bank according to the purest Central Bank theory. Such a Bank, regulating the currency and credit of the country through the re discounting of three-months trade bills for the commercial banks and for the outside market, and not in any way competing with the commercial banks, would be the beau-ideal of the enthusiast for the Central Bank theory.

I do not think, however, that this was the motive of those who framed the Currency and Banking Act. If you examine the charters of the various new Central Banks which have come into existence since the War, you will find a great likeness between them. And the reason for tying them down to very restricted powers is fairly obvious. A Central Bank, if properly directed, should be a powerful instrument for good; but if it was in the

hands of people who were unaccustomed to Central Bank ideals, and who wanted to run the Bank for profit rather than for service, or if it came too much under the influence of a Government who were imbued with the popular idea that prosperity and purchasing power must necessarily go hand in hand, it might do a great deal more harm than good. It was necessary, therefore, to be careful.

The transplanting of the Central Bank system from countries where it has evolved in the natural course of events to countries where it is to be superimposed upon a local banking system is an operation which must be done with care, for the reason that Parliamentary regulations are a poor substitute for tradition. In Europe Central Banking has "slowly broadened down from precedent to precedent," but even in the oldest banking countries it is of comparatively recent origin. That is to say, that it was not till recently, I think I may say almost within my own banking lifetime, that Central Banks have fully recognised themselves as such. In the middle of last century there were Bank of England directors publicly stating that the Bank of England's chief duties were to its own stockholders, and that its public responsibilities differed from those of other banks in degree only, if at all, and certainly not in kind. On the other hand, at the same time there was in existence a certain person, Walter Bagehot by name, who was perhaps the first to see something of what central banking really meant. His book, *Lombard Street*, after having been read for a generation, either created, or accompanied the formation of, modern Central Bank ideas. Towards the end of the century the Bank of England, keeping the noiseless tenor of her way, had advanced a long way towards being the complete Central Bank. Elsewhere in Europe central banking did not develop quite so far during those years as it did in England. London, being the money market of the world, had more need than any other country for a highly developed banking system.

There was, however, in the early years of the new century a great development in another continent. The United States had one of their frequent periodical crises in the year 1907, which was only one of a long series of illustrations of the inherent defect in their banking system, viz. the lack of centrality; and having studied the subject by means of a Commission which examined all the chief European systems, they set up the Federal Reserve system.

The Central Banks on the Continent were not in the way of becoming such purely Central Banks as the Bank of England, for

the simple reason that the ordinary commercial banking systems themselves were not so highly developed as in the British Isles. In France, for instance, the note of the Bank of France is the great instrument of payment, and not the cheque, as in England and Scotland. Banking, therefore, is far less centralised, for the reason that advances by the Bank of France to private customers are taken out largely in notes, and therefore do not at once swell the balances of the other bankers with the Central Bank as they do in countries where the cheque system is highly developed. The same thing applies to most of the other Central Banks of the Continent. The choice before South Africa, whose banking system, being founded by Englishmen and Scotchmen (mostly Scotchmen), has followed the British system of highly developed cheque banking, therefore lay in the models supplied by the English and American Central Bank system, and she adopted what suited her best from both systems, together with certain points derived from the Bank of Java. I may, perhaps, parenthetically remark that it is for this reason that in this paper I refer to the Bank of England and the Federal Reserve Banks for purposes of comparison with the South African Reserve Bank rather than the continental banks.

After the War, Central Banking received a great impulse. The International Finance Conference which met in Brussels in 1920 passed a Resolution that "in countries where there is no Central Bank of issue, one should be established"; and the subject was very generally studied throughout the world, especially by those countries which were the most anxious to recover financial stability. I do not think that South Africa received the impulse to start her own Central Bank entirely from the Brussels Conference, because years before that there had been some talk on the subject. Moreover, some of South Africa's own immediate post-war experiences turned the thoughts of a good many people in the direction of central banking as to a means of preventing a congestion in banking facilities, which under the then existing system had actually prevailed in South Africa for a short period. It was true that the circumstances were very exceptional, but it was felt that they might occur again.

The post-war boom had produced inflation in South Africa as everywhere else, and the Government of the day, very anxious to get the currency position in order, had appointed a Gold Conference, a Currency Committee and a Select Committee in quick succession in 1919 and 1920. An embargo had been placed on the export of gold at the beginning of the War, but was not

made effective till 1917, and though up to this time, and even afterwards, gold continued to be in internal circulation, the note issues of the banks had been increased from £2,300,000 in 1914 to £9,200,000 in 1920. The liabilities of the banks had likewise risen enormously, from £68,000,000 in 1913 to £138,000,000 in 1920. With the great rise in prices which these figures imply, and with the leakage of gold from the country, which could not fail in such circumstances to occur, the banks had a hard task in financing the country's exports. I read in the records of those days that for a certain time the banks actually ceased buying export bills, and though this period of inability was only a short one, the need for a Central Bank by which such a stoppage would in future be avoided was doubtless impressed on many minds.

It has been said that the Union Government jumped at the idea of a Central Bank and swallowed it whole without chewing it, and it has also been acridly remarked that, whereas the United States sent a Commission to gather information from all parts of Europe before founding their system of Reserve Banks, the Union Government held no proper expert inquiry, but were persuaded by the extreme plausibility of one talented adviser, Mr. (now Sir Henry) Strakosch.

This criticism I think goes far astray. It was obvious from what I have already said that South Africa must model her system either on the British or the American. Moreover, at the time of which we speak central banking was far better understood than at the time when the United States first began to make their inquiries, and its general principles were much more fully grasped. Those principles in the first instance required study because Central Banks in the older countries had invented themselves in a fit of absent-mindedness. There was no conscious effort, no bracing of themselves up and saying, "Go to, let us create a Central Bank." Compared with the difficult task of establishing a new Central Bank on the correct principles, it was a comparatively simple thing for a bank like the Bank of England gradually to slide into being a Central Bank: to awake one morning, as it were, and find that it had developed into a new kind of institution with new duties and new privileges, such as had never before been contemplated in the banking world. A few years after the Old Lady of Threadneedle Street had been awakened by the Fairy Prince in the shape of Mr. Bagehot, it began to dawn on the other banks that they were commercial banks as apart from Central Banks, and that their own particular Central Bank had duties to them, and perhaps that they had duties to it.

That, as I have meant to indicate, was a process of evolution, an organic growth of gradual adaptation to environment. In South Africa it was quite another thing. A Central Bank sprang fully armed from the head of the Legislature—perhaps not so fully armed as it ought to have been, but sufficient armour was doubtless intended. What the framers of the Act had in mind may not be entirely clear to those who have only the Act they drafted to guide them, but one thing is certain. They were not going to take the chance of the new Bank running away with the bit between its teeth. There was no sparing of the curb. What the Bank might do, and what it might not do, was very particularly laid down.

In England the difficulty of defining a Central Bank's duties never had to be faced. The Bank of England was already a bank of long tradition, prestige and power, at the time, now nearly 100 years ago, when most of the present banks, or their progenitors, came into being. It was therefore natural for these banks to regard the Bank of England as a bank of a special kind, to invest it with a kind of halo, and to be willing to deposit funds with it for the purpose of settling clearing differences. This was the way in which the Bank of England began to be a Central Bank. It was the custody of the other bankers' balances, and the fact that the other bankers could draw out those balances in gold at any time, that gradually made the Bank of England responsible for maintaining the gold reserve of the country, and the responsibility for maintaining the gold reserve of the country was the guiding—or shall I say goading?—principle which inspired or forced it towards that ideal of central banking, viz. service first, second and all the time, which it has since progressively pursued.

I have already pointed out that the South African Reserve Bank was not allowed to do any of the ordinary business of a bank except to discount short trade bills. Doubtless it was a wise precaution to restrict the powers of the Bank at the beginning until it could learn its way in novel surroundings. But, as in South African commerce trade bills play a minor part, the restrictions were rather severe. The internal trade of South Africa is carried on for the most part by a system of open accounts as between wholesalers and retailers, and of overdrafts as between banks and their clients. There are a good many promissory notes floating about, many of them, of course, representing debts incurred for the carrying out of trade transactions, but many of them, on the other hand, being accommodation paper of some sort; but regular genuine trade bills are not very numerous.

Some of the big wholesale houses have them, but they do not largely discount them. It follows that as trade Bills are not in common use in South Africa, there is no bill market. It is perhaps not quite sufficiently appreciated in the big financial centres that South Africa has no money market and no bill market. Discount brokers, bill brokers, underwriters, *et id genus omne*, are not among the fauna of this country.

I do not know enough of conditions in other countries where new Central Banks have been started to be able to say whether their problems have been the same as ours in South Africa. But in every country where there is no money market, and where either the Government or the other banks are not more or less continually in debt to it, the same problem must present itself, viz. how without direct competition with the other banks a Central Bank can exercise a proper control over credit conditions. Later, I shall revert to this subject, but for the present I wish to speak about the amendments which were very shortly found necessary to be made to the original Currency and Banking Act.

The Bank started business in June 1921. By the beginning of the year 1923 an Amending Act was on the stocks and was passed into law the same year. The two chief alterations made by this Act were: (1) the rearrangement of the Board of Directors and (2) the making of the Reserve Bank note legal tender by everyone but the Reserve Bank. As to (1), after about eighteen months' experience the Board with one dissentient had agreed that the Government should be requested to amend the Act in such a way that the commercial banks should no longer be represented on the Board, nor, on the other hand, be required to hold the stock of the Bank, and effect was given to this Resolution in the Amending Act of 1923.

By this Amendment the South African Reserve Bank made a definite move away from the American to the English model. The reason why this step was taken can be explained by a quotation from the recent work on *Central Banks* by Messrs. Kisch and Elkin, written, of course, some years after our action in this matter:—"As the dealings of the Central Bank will be largely with the commercial banks, it is desirable to provide that the latter should not obtain control of central banking policy. The relations of the commercial banks with trade and industry may on occasion colour their view as to what the policy of the Central Bank should be. Clearly a policy that should be directed by national consideration ought not to be subordinated to the interests of the principal customers of the Central Bank."

The other main amendment of the Act, by which the notes of the Bank were made legal tender, was dictated by a reason of banking convenience. As the law stood it was open to any person at any time to refuse to accept Reserve Bank notes and to demand gold. Obviously it would have been a great inconvenience to the other banks to have to keep a stock of gold as well as of notes wherewith to cash cheques drawn on them.

One of the difficulties from which the Reserve Bank suffered in its early days was the lack of good trade bills on which to carry that part of its note issue not based on gold. It held from time to time a certain amount of bills rediscounted for the banks, but these were not enough to give it a living, and Central Banks, though not greedy for profits, must make enough to live on and pay their way. To assist it in this and also to make available for use in this country the large London balances of the commercial banks, the Amendment Act of 1923 allowed the Bank for the following five years to hold a certain proportion of Union and British Treasury bills as cover along with trade bills for its note issue. This measure was very useful for a time, but lapsed in 1928, when as things had developed it was no longer necessary.

Most Central Banks are obliged by law to buy any gold offered to them at a certain price. The South African Reserve Bank is an exception. Nevertheless, its policy has always been to buy any gold offered to it. Since 1926 it has been under an agreement with the gold producers under which it undertakes to buy all the gold bullion offered to it by the producers at the rate of £3 17*s*. 9$\frac{1}{8}$*d*. per standard ounce. On the other hand, the gold producers undertake to sell to the Bank all the gold bullion produced by them which they do not sell direct to Great Britain or India. Under this arrangement the Bank during the past three years has bought £123,000,000 worth of gold. Of this, £72,000,000 worth was sold in the London market, £46,000,000 worth was coined into sovereigns and mostly exported in that form, and £5,000,000 worth was sold to India in the form of bullion.

India, regularly, and South America, spasmodically, have taken very large amounts of sovereigns during the last few years, and the larger portion of the sovereigns coined were sent to these destinations, though a good number also were sent to London. These exports are of the nature of sales of gold, not by way of settling trade indebtedness with the countries mentioned. South Africa's gold export is in this way entirely different from the gold exports of other countries. Whether South Africa is exporting

bullion or sovereigns, she is exporting for sale a commodity she produces—she is not parting with her banking reserves in order to pay for excess of imports. Of course her export of sovereigns does occasionally make a drain upon her stock, which requires some regulation by the Reserve Bank in concert with the other banks. The point is, however, that in South Africa the banking system is not dependent on a reservoir of gold which, when depleted, has to be refilled from sources outside herself—she has a perennial stream of gold flowing within her own borders.

Owing to its large purchases of gold the Reserve Bank holds a dominant position in the Exchange. This will be realised when it is considered that in 1928 the whole of the Union's exports, including gold, amounted to about £95,000,000, and that the Reserve Bank had the financing of nearly £43,000,000 of the gold. Its rate for selling sterling is fixed by the cost of shipping the gold to London.

Owing to its enormous transactions in gold the Bank has very large balances in London, which it sells to the other banks or to the Government or mining houses. It generally, however, has a floating balance in London of from £6 to £8 millions which it invests in London prime bank acceptances. It has been objected that the Reserve Bank should not use this money in London, but should employ it in South Africa. This is an entire misconception. The money is, of course, being used in South Africa, because the balance in London merely reflects the balance of the credit which has been created in South Africa by the purchase of the bullion. If the Reserve Bank balances in London entirely ran off, it would mean that the Commercial Banks in South Africa had used up all the credit which the Reserve Bank had created in South Africa by the purchase of the bullion, for the purpose of buying the sterling balances which had arisen from the sale of the gold in London.

The production of gold in large quantities in a country makes the position of a Central Bank easier from one point of view and more difficult from another. The export of gold is, as a rule, a purely commercial process in South Africa. Gold goes away every week as a matter of course in the form of bullion. On the other hand, there is, as has already been explained, always a steady, and sometimes a very large demand for sovereigns. The Mint has to be kept in being, and the Reserve Bank decides the amount which ought to be sent abroad to be sold as bullion, and the amount to be retained in Pretoria and coined into sovereigns. If there is not sufficient demand for sovereigns in South Africa

or abroad, they accumulate in Pretoria. Then, in order to provide balances in London with which to pay for imports, the sovereigns, if there is no demand for them elsewhere, must be sent to London for the Reserve Bank's credit with the Bank of England. In this way the Reserve Bank easily and almost automatically distributes the gold either for sale or to be kept for banking purposes in South Africa.

Since the Reserve Bank has been in existence there has been no boom in South Africa. The first few years were years of deadly stagnation after the post-war boom. Doubtless booms will occur again. The significant thing to an ordinary Central Bank in a boom is that it begins to lose its gold reserves. This significance would be less noticeable to the South African Reserve Bank, as it continually loses gold in a natural way, and always has more gold coming along to fill up the gap. What would be significant to the Reserve Bank would be that, if the boom was getting out of its depth, the demand for exchange would be greater than the supply, and the Bank would have to alter its exchange rate. For this reason it seems likely that the exchange rate may become an important factor in the regulation of credit conditions in South Africa; and for this reason also it is important that the Reserve Bank has a close control of the exchange.

The Reserve Bank has done very little private business, and has no banking accounts except those of the other banks and the Government, including the railways. It has done some discounting business for private firms both in inland bills and in foreign documentary bills, and this business it holds itself out as ready to do at any time at its published bank rate. It has five branches in addition to its Pretoria office, viz. Johannesburg, Cape Town, Durban, Port Elizabeth and East London, and though it does very little business there beyond supplying the banks with notes and specie, and taking out of circulation all worn coins and soiled notes that come into its hands, its bank rate forms a standard discount rate for the country for first-class trade bills.

The Bank, of course, takes charge of the various Clearing Houses, and whereas differences between the banks in each town or dorp were formerly very often settled in cash, they are all settled now by drafts on Pretoria. By this means a great saving in specie holding and transfer is gained.

As the bankers' bank the Reserve Bank has a regular business in rediscounting bills for other banks, though it must be confessed that only a small part of its energies and resources are thus engaged. It stands to reason, however, and it would hardly

need to be said, if some die-hards did not every now and then resurge from their last ditches to assert the contrary, that the presence of the Reserve Bank in South Africa has greatly increased the elasticity of credit in the country. Even if the Reserve Bank never had more power than it has at present, it would stand as a great source of strength in time of need, whether such need were caused by prosperity or adversity. The commercial banks of South Africa are as sound and solid institutions as any in the world, and from the point of view of their soundness and solidity it might be argued that there is no need for the South African Reserve Bank. Just in the same way, and with an equal portion of truth, it might be argued that the London banks are so strong that there is no need for the Bank of England. But I am sure the London bankers would not argue in this way, and I do not think that South African banks would do so either. Even in ordinary times, and disregarding for a moment the exceptional days of crisis, a Central Bank performs the same benefit for the daily traffic in the banking world that the pneumatic tyre does for the motor-car. It cushions the bumps, and makes the whole service easier, smoother, speedier and more efficient.

Probably the Bank has not fulfilled the expectations of those who thought that by its advent rates for advances were to be heavily reduced, and that the charges for banking facilities generally were going to be made much cheaper. As a matter of fact, rates must be proportioned to security. This is a comparatively new country, and security is often not of the very best kind. In other words, banks in South Africa have to take more risk than in many older countries, and rates must therefore necessarily be somewhat higher. Considering this and considering the limited markets for the realisation of assets in case of need, and considering once more the high cost of living, rates are not on the whole high in South Africa. In fact, they compare favourably with any but those of the first-class financial centres.

There seems to be a good body of opinion that the powers of the Central Bank should be enlarged, and yet I think that that opinion is based on the expectation of cheaper money owing to the Reserve Bank's competition with the other banks, rather than on a desire for the more efficient carrying out of the Reserve Bank's functions. As a Central Banker, however, the only justification for increased powers which I could admit would be that they would enable the Bank to maintain a closer touch than at present with the country's credit conditions. Merely to compete with the other banks would not assist us to this end.

Although it is desirable that in highly developed banking countries there should be such co-operation between the Central Bank and the commercial banks as would be impossible if there were active competition, it is not only or even mainly on that ground that I deprecate such competition. The chief reason is that it is impossible for a Central Bank to compete effectively with the commercial banks and still remain an effective Central Bank. I have seen it argued that the English commercial banks accept the competition of the Bank of England without grumbling because they know that the Bank of England is inspired by altruistic motives. But as a matter of fact the Bank of England controls credit, not by competing with the other banks in the field of their ordinary business, but by doing business at times when the other banks are deliberately restraining their activities. For instance, at the end of each month and half-year the commercial banks, desiring to make their position more liquid, call in some of their loans to the money market, which then has to borrow from the Bank of England. It is the anticipation of the rate which may be charged by the Bank of England, when the market has to depend on it for a fresh supply of credit, which keeps outside rates in some relation to the bank rate. On the other hand, if the Bank thinks it necessary to curtail the amount of credit, it sells stock or Treasury bills or borrows on them in the open market. In this step also there is no competition with the other banks. In the United States, again, the Reserve Banks do no business at all except with the member banks or the open market, and thus do not compete at all with the commercial banks for ordinary business.

It does not seem to be generally understood how almost impossible it is for Central Banks to compete effectively with commercial banks. To keep its connection together is the vital need of an ordinary bank, and to do this it must meet all the reasonable, and sometimes the unreasonable, requirements of its customers through financial weather fair and foul. But when a Central Bank has on its mind the anxious duties of regulating credit and maintaining its metallic reserves, it can have no thought for its ordinary customers, and therefore it cannot expect to retain their custom. The constant tendency for the old true Central Banks who have customers is gradually to lose them, and there is, therefore, not much temptation for a new Central Bank to go out of its way to cultivate a connection of ordinary banking customers.

There is another reason why active competition with the commercial banks is almost impossible for a true Central Bank. Any

advance or discount made by a Central Bank nearly always increases the other banks' balances with itself and provides them with an enlarged capacity for making advances. Let us suppose, for instance, that the Central Bank makes an advance of £1,000,000, and that of this million £900,000 is paid to the credit of the accounts of customers of the commercial banks; a small amount might be withdrawn in cash, but in a general way the commercial banks' balances with the Central Bank would be increased by £900,000, and with this basis these banks could make new advances up to £7,000,000 or £8,000,000, and still retain their usual reserve against their liabilities, which would, of course, be increased in the same measure.

Such considerations make a Central Bank very careful how it uses its strength. To rush into competition with the other banks with the idea of thereby gaining control of the situation would be very unwise. Whatever control might be gained in this way during a season of prosperity would assuredly be lost during a season of adversity, and that is just the time when control is most wanted. When the other banks have got to the point when they can lend no more is the time when the Central Bank should appear on the scene as the saviour of the situation, but it could never do this if it had itself been jostling shoulder to shoulder with the other banks in an eager competition for business.

If my arguments are valid it follows that the correct line of action to be followed by Central Banks in countries like South Africa, possessing neither organised bill markets nor money markets, is to do all they can to cultivate the growth of such institutions, and meanwhile to find some working substitute for them. If the powers of the Reserve Bank were somewhat enlarged, without overstepping the limits of a Central Bank's proper sphere, it should be quite possible for the Bank itself to form an outside market for certain lines of business without involving the creation of the relations of banker and customer, so that it could still have freedom to abstain from business, or do business, without offence either to its temporary client or to the commercial banks.

Whatever amendments are made to the Currency and Banking Act in the future, there are three fundamental restrictions to Central Bank activities which I hope will never be abolished, viz. the Central Bank should not be allowed—

(1) to give interest on deposits;
(2) to make loans on fixed property;
(3) to make unsecured loans in any form.

On the other hand, apart from these restrictions, which are so severe that real competition with commercial banks is entirely precluded, I think that most Central Banks could carry out their duties more efficiently if they were not prohibited from carrying out any other ordinary well-secured banking transaction of short currency.

That Central Banks are a blessing to the communities which are fortunate enough to possess them is, of course, one of the first articles of my creed. That in a new country they can immediately grow to their full stature, and be all that they ought to be, is one of the last things I can believe. The few years in which the new Central Banks have existed have not been years in which there has been a great opportunity for demonstrating their usefulness. In South Africa, it is true, very early in its career the Reserve Bank had an exceptional opportunity of doing so. It is, I think, unquestionable that in the year 1923 it gave a convincing proof of its great value by steering the country through what would most probably have been a very bad financial crisis if there had been no Central Bank to guide, advise and help. But apart from this very illuminating incident it must be granted that a Central Bank, which starts its career in the middle of the profoundest trade depression which the world has ever seen, has not much chance of being able to demonstrate in actual working the merits of a central banking system. For a real understanding and appreciation of the true stabilising functions of a Central Bank its workings must be examined over a period which embraces seasons of great commercial activity, as well as those of inactivity and those of moderate activity.

With or without the enlarged powers to which I have referred, the Reserve Bank, with its high percentage of 40 per cent. of gold to liabilities both for deposits and notes issued, must in the future development of the country be of very great strength to her. Indeed I think South Africa has every reason to congratulate herself on the strength and solidity of the whole of her banking arrangements. If you add to her solid commercial banks a solid Reserve Bank, and then add to that her gold mines, her Refinery and her Royal Mint, you have a combination unsurpassed, if not unequalled, in the world for maintaining her currency and finance in a state of stability.

W. H. Clegg

South African Reserve Bank,
Pretoria.

GROUP ADMINISTRATION IN THE GOLD MINING INDUSTRY OF THE WITWATERSRAND [1]

1

The Gold Mining Industry of the Witwatersrand has, in the forty-odd years of its existence, produced gold of a total value of nearly £1,000,000,000 derived from the treatment of over 700,000,000 tons of rock. The present output,[2] of a value of £42,000,000 per annum, represents more than one-half of the yearly gold production of the world, and, according to an official Government estimate made some years ago, there are in South Africa a quarter of a million white people and a million natives directly and indirectly dependent for their livelihood on the activities of the Gold Mining Industry on something like the current scale. It will, therefore, be readily appreciated that the industry occupies a vastly important position in the economic structure of South Africa, and it seems safe to assume that, although the facts are well enough known to the people who are associated with, or have studied, the organisation and development of the mines, some general description of the administration and management of the great undertakings that comprise the industry will be likely to prove of interest, and perhaps of value, to economists and industrialists and to others, who are concerned with the practical application to everyday business practice of those sound economic principles which so often it is found more easy to endorse than to apply.

The pioneers of the Gold Mining Industry—the prospectors, the diggers, the officials and the financiers—displayed great courage, enterprise and energy in exploiting the Witwatersrand reef formation, the enormous potentialities of which were, how-

[1] Read before Section F of the British Association, Johannesburg, August, 1929. The author is President of the Transvaal Chamber of Mines and a director of the Central Mining and Investment Corporation.

[2] During the year 1928 the Companies producing gold on the Witwatersrand treated 30,045,100 tons of ore, and extracted therefrom 9,840,698 ounces of gold. The working revenue of the Companies was £42,039,869, and the working costs £29,598,151; working profit amounted to £12,441,718, from which, after payment of taxation and the Government share of profits, dividends amounting to £7,980,095 were paid. The sum paid in wages amounted to about £14,500,000, of which an amount of more than £8,000,000 was paid to Europeans.

ever, undreamt of in the early days. In the year when the first crushing of ore took place there was a yield of gold of 23,000 ounces, but within ten years the production had grown to almost 2,500,000 ounces. It was during the intervening period that the problems of organisation and management had become serious and, indeed, acute. As early as 1889 the yield of gold, which had then risen to 370,000 ounces, was the product of sixty-five Companies and Syndicates, while in 1893 there were actually one hundred and eighty-three Gold Mining Companies in the Transvaal, of which one hundred and four had yielded no gold, most of the latter being described at the time as " in a state of development and equipment "—a stage from which the majority of them never emerged.

The industry in its youth, as is scarcely surprising, experienced many vicissitudes. The eager speculative public succumbed to the guile of the exaggerated and unreliable prospectuses that were often issued. Over-promotion, over-capitalisation and over-speculation caused a loss of confidence and resulted in periods of deep discouragement and depression. Accurate information of results was scanty; administration was haphazard and costly, and, according to contemporary reports, the mines, generally speaking, were badly and extravagantly managed. At the end of 1889 the representative of the British Government at Pretoria entertained grave apprehension as to the then existing position, and he formally expressed to the newly-established Witwatersrand Chamber of Mines the view that:

> " a legitimate statement of the actual resources of the great Companies and a wholesome exposure of the gross frauds so plausibly imposed on the public . . . a lesser promotion and a greater production can alone establish the Transvaal mines in the minds of the investing public of Europe."

There is no need, for our present purpose, to describe in detail the means or the stages by which revolutionary changes in management and administration were brought about. The main reason for the changes was the sheer necessity for them; the young industry of that time could never have acquired real stability and could never have had any prospect of healthy growth and efficient development in the absence of effective organisation and the acquisition by powerful financial Corporations, who possessed the confidence of the investing public, of such predominant interests as justified them in planning and

financing the exploitation of the Witwatersrand field on a great scale—a scale unexampled in the previous history of mining.

By the year 1897, partly in consequence of the work of the first Chamber of Mines, which had been started eight years before, but mainly as a result of the considerable concentration of the control of individual mines in the hands of a few financial groups, the general organisation of the industry had taken a form which, though comparatively small in scale and imperfect in application, nevertheless bore some broad resemblance to the Group system of the present day.

The Transvaal Republican Government appointed in 1897 a representative Commission of Inquiry, which was directed to furnish to the Executive Committee of the Volksraad a report on " all matters that stood in the way of or hindered and still may hinder the development of the Mining Industry." The report of that Commission and the voluminous and illuminating evidence which it considered lie buried and almost forgotten in the pigeon-holes of seldom-consulted reference departments, but it is interesting to discover that at that early date, when the organisation of the industry under the Group system was in its infancy, the Commission unanimously found that:

> " . . . There exist all the indications of an honest administration, and the State, as well as the Mining Industry, must be congratulated upon the fact that most of the mines are controlled by financial and practical men who devote their time, energy and knowledge to the Mining Industry, and who have not only introduced the most up-to-date machinery and mining appliances, but also the greatest perfection of method and process known to science. But for these, a good many mines now producing gold would not have reached that stage."

This was, indeed, a striking tribute by an independent public body to the achievements of the Group system as it existed over thirty years ago, and the greatest credit must be accorded to those responsible for the vast improvement which the results represented compared with previous practice.

It may, however, be observed that relatively little of the Gold Mining Industry as we know it to-day would be in existence if the standards which the Commission of 1897 considered to be practically incapable of improvement had remained unaltered. In that year the average yield of gold over the whole industry was 11·4 dwts. per ton milled, that of the highest grade mine

being 32·3 dwts. per ton milled, ranging down to 7·6 dwts. per ton milled in the case of the lowest grade mine. Working costs averaged 29*s*. 6*d*. per ton milled. At the present time—on the basis of the figures for the year 1928—the average yield of gold for the industry is only 6·55 dwts. per ton milled, that for the highest grade mine being 10·8 dwts. and that for the lowest grade mine 4·0 dwts. per ton milled. Current working costs for the whole industry are 19*s*. 9*d*. per ton milled. Average working costs thirty years ago were, as mentioned, 29*s*. 6*d*. per ton milled. There are at present twenty-five Witwatersrand gold mines which last year treated 68 per cent. of the total tonnage of ore crushed by the industry, every one of which mines had a working revenue of less than 29*s*. 6*d*. per ton milled, that is, a total revenue less than the average working costs in 1897. The average revenue of these twenty-five mines was only 23*s*. 1*d*. per ton milled.

These comparisons should not, of course, be pressed too far, because the circumstances of the industry have changed materially in the period under review. For the most part, however, they have changed in directions that have imposed greater costs on the mines—miners' phthisis compensation, higher wages, more onerous railway and customs rates, the far greater depth of workings (one mine is at present working at a vertical depth of 7,600 feet below the surface), are all factors that have resulted in higher costs. It is only because of the enormously increased scale of operations, conspicuous, in fact revolutionary, improvements in mining methods and efficiencies, and the co-operative policy followed in coping with the innumerable technical and industrial problems that have, from time to time, arisen—much of which has been accomplished or facilitated by the Group system—that the Gold Mining Industry has not simply survived but grown prodigiously.

I may give another example of what has been achieved by the industry under the Group system over a shorter period. In 1904 a prominent American mining engineer, Mr. Ross Browne, made an estimate which, though it was, at the time, regarded with the utmost scepticism, is of historical importance as being the only scientific comparison of the Rand with gold-mining areas in other countries, of working costs under different labour systems. He then concluded that under "the most favourable conditions," which "most favourable conditions" included the expectation, or rather the hope, of a 50 per cent. reduction of railway and customs charges and a radical curtailment of Government regulations, a working cost basis of 15*s*. per ton milled might be attained.

Since then, however, railway and customs rates have been largely increased; a liability for miners' phthisis compensation, equal to about 6*s.* per white underground shift (representing a contribution by the employer of nearly £100 per annum for each white person employed underground), has been imposed on all the gold mines;[1] Government regulations are more and not less stringent; and yet, in 1928, working costs for the whole industry averaged only 19*s.* 9*d.* per ton of ore milled. If allowance is made for the fall in the purchasing power of money between these two dates, the figure of 19*s.* 9*d.* per ton in 1928 is the equivalent of 14*s.* per ton in 1904. We may, therefore, say that the extreme measure of improvement in efficiency and economy that Mr. Ross Browne put forward as a theoretically possible achievement has been more than attained, notwithstanding that the charges imposed on the industry by the Government, which he assumed would be much reduced, have, on the contrary, been greatly increased. When Mr. Ross Browne estimated possible working costs, under "the most favourable conditions," of 15*s.* per ton, the actual costs were, at that time, 22*s.* per ton milled. As I have said above, the comparable figure for 1928, after allowing for the lower purchasing power of money, would be 14*s.* per ton, or a reduction in working costs of no less than 8*s.* per ton, or 36 per cent., in the last twenty-five years.

II

There are on the Witwatersrand at the present time thirty-three gold-producing Companies[2] with a combined issued capital of about £36,000,000, the current market valuation of whose shares amounts to approximately £66,000,000. Each of these Companies is a separate entity, having its own body of shareholders electing its own Board of Directors. But the control and administration of all the Companies, with one or two minor exceptions, are in the hands of one or other of a few large Corpora-

[1] Compensation for silicosis contracted in the gold mines was first introduced under the Miners' Phthisis Act of 1912. At present, in accordance with amended legislation, a levy of £800,000 per annum is required to meet the claims of the Compensation Fund. There is, in addition, an outstanding liability which was estimated by the Government Actuary, as at the 31st July, 1927, at a present value of £5,705,000, this sum representing the present value of the amount that would be required to meet existing claims on the Fund if all the mines were closed down at this date and no further silicosis was caused. The employers are exclusively liable for the provision of this compensation.

[2] A list of these Companies, showing the Groups by which they are administered and their scale of operations in 1928, is given as an Appendix.

tions possessing strong financial resources, long and intimate experience of mining enterprises and efficient technical and administrative staffs. On the Witwatersrand one such Corporation controls fourteen gold-producing Companies, another controls six, and so on. The controlling Corporation holds a share interest in each subsidiary Company it controls, which is usually a large interest, but seldom anything like a majority interest, and it is true to say that, in practice, the control which any one of these Corporations exercises is exercised by virtue of the support of the general body of shareholders of the individual Companies and not by the weight of its own share interest. That support is accorded in consequence of the recognition of the economy and efficiency of a system which places the ultimate management and determination of policy in the hands of an experienced and financially powerful Corporation, whose record and prestige, and whose responsibility to its own shareholders, are a guarantee of efficient and honest administration. The controlling Corporation, or Group, ensures the effectiveness of its control by having, with the approval of the shareholders, the necessary number of its nominees on the Boards of Directors of the individual Companies and by acting as the Secretaries and Consulting Engineers and Technical Advisers of the subsidiary concerns. It is sometimes said and assumed that the influence of the general body of shareholders under the Group system is purely nominal, and that the power of the controlling Corporation, when exerted, is, by virtue of its shareholding, overwhelming. This, however, is a misconception. Among the various Gold Mining Companies of which I myself happen to be a Director there is one with 9,157 shareholders, another with 6,550 shareholders, a third with 6,345 shareholders. The fact is that the Group system—the control of a group of mining companies by a single Corporation—depends ultimately for its continuance upon the support and confidence of the general body of shareholders of each of the individual Companies.

At this point I may perhaps refer to the suggestion sometimes made, that the individual shareholder is placed at a disadvantage by the fact of the administrative and technical direction being in the hands of a Corporation, which is also a shareholder in the Company it controls. The implied criticism or suspicion is that early knowledge of results and of favourable or unfavourable developments enables the possessor of that knowledge to take advantage of it for the purpose of dealing in shares. It should, however, be obvious that the individual shareholder in any

industrial enterprise has to trust somebody, has to rely on the *bona fides* and fair-dealing of some managerial and administrative organisation. It is absurd in principle to suppose or claim that, though the general body of shareholders can trust the good faith of a Board of Directors—composed of people who are themselves shareholders—controlling the affairs of a single Company, it should not trust a Board of Directors or a controlling Corporation, when it happens to look after the interests of several Companies. It is simply a matter, in any industry under any form of organisation, of having people in charge of the administration, who display a full and honourable appreciation of their obligations to shareholders, and whose record reveals a faithful discharge of their responsibilities. There is no industry in the world of which I have any knowledge where the general body of shareholders is furnished at regular intervals with the volume of information concerning the affairs and results of individual Companies that is given by the Gold Mining Industry. Every month a statement is issued by each Company showing the tonnage treated, the total revenue, working costs and the profits earned; this is supplemented every quarter by a longer official report sent to every registered shareholder in South Africa and overseas and published in the Press, giving details of working results and of development operations and any matter of general importance; every year there are the unusually comprehensive Directors' Reports and Accounts, accompanied in most cases by separate reports by the Manager of the mine and the Consulting Engineer, and at the Annual Meetings the affairs of the Company are fully reviewed and discussed. It is, further, the regular practice to publish special official announcements whenever anything of exceptional importance occurs. Rumour, of course, plays a part in share-market operations, but the wise shareholder in a producing Company is he who relies and bases his actions upon the official information supplied, which is designed to give a representative indication, taking proper account of unfavourable as well as favourable features, of the position at any time or over any given period.

III

Having explained how administrative control under the Group system is established and maintained, I proceed to a brief outline of the essential features of the system in operation—how it works and the services it performs. The individual

Companies are, as I have already stated, separate corporate entities, each mine having its own staff—managerial, technical and secretarial. Although there are superimposed upon the individual managements, firstly, the decisions of the Directors and the general policy determined from time to time by the Board, and, secondly, the advisory and supervisory services of the Group organisation, individual managerial authority and responsibility are jealously safeguarded and upheld, there being no attempt to cause the Group administration to function as a sort of super-manager or in any way that might tend to discourage the initiative of, or undermine the authority exercised by, the individual manager in discharging the duties of his important and responsible position.

The Group—an expression I shall now use in preference to that of the controlling Corporation—is, however, able, while encouraging the best efforts of the separate managements, to render to the individual Companies a variety of valuable services which would not otherwise be available to them, except at excessive and, in many instances, prohibitive cost. The Group maintains staffs of Consulting Engineers, Consulting Mechanical and Electrical Engineers, Consulting Metallurgists and other technical experts whose energies are devoted to the major technical problems of the mines under their supervision, to co-ordination of practice, and to the introduction of improvements in methods and appliances that the experiments and investigations constantly in progress frequently succeed in producing. The technical officials of the Group, chosen for the particular positions they occupy because of their possession of exceptional qualifications and experience, provide, in themselves, a complete and exceptionally efficient organisation, the full strength of which is immediately available to the individual Company—to the struggling Company no less than to the prosperous Company—whenever a difficult problem arises, whenever large questions of the expansion or curtailment of operations are under consideration, and whenever there have to be decided such matters as the opening up of new mining areas, involving decisions as to the sinking of shafts, the lay-out of workings, the installation of machinery and equipment, and the undertaking of capital expenditure programmes that are often of great magnitude.

The Group organisation also acts as the Head Office and as Secretaries of the individual Companies, and in that capacity performs innumerable services, only a few of which I need detail. It undertakes all the work required for the purposes of the

Board Meetings and Annual Meetings of the respective Companies; it keeps the Share Registers and effects all registrations and transfers of shares; it arranges all insurances—the importance of this work alone is indicated by the fact that the total insurances of one kind or another placed and maintained by one Group for the mines under its control amount to about £43,000,000; it handles all estate and land transactions, all taxation, claim licence and phthisis compensation questions, and it is responsible, in consultation with all the authorities concerned, for the formulation of the numerous internal regulations that are designed to ensure, and do in fact ensure, a substantial measure of uniformity of practice throughout the mines of the Group. Another service deserving special mention is that performed by the Buying Department. The purchasing of supplies for the individual mines is undertaken by the Group organisation, and it is an arrangement that has proved conspicuously successful and remarkably economical. The merits of the system are that centralisation allows the smallest mining consumer of a particular commodity to secure the advantage of the more favourable prices that apply to the collective Group contracts for that commodity; the scale of purchases enables the Department to conduct, where advisable, systematic laboratory tests of the articles supplied; the concentration of orders facilitates standardisation on products of proved reliability and ensures that prices shall always be considered in relation to quality. The magnitude of mining purchases and the control of buying by the Group are conditions that have at one time or another aroused suspicion, in the minds of people predisposed to criticise the industry on any real or fancied ground, that here must be a case where the Group is able to plunder and probably has plundered the individual Company. The Union Government appointed a Commission some years ago to consider the position of the poorer mines with a precarious future, and the Commission investigated an allegation that centralised buying by the Groups was conducted at extravagant cost. The result was illuminating, and I quote the finding as representing a signal justification of the Group system. In its report this Government Commission stated:

> "Some witnesses expressed the opinion, unsupported by evidence, that undue or hidden profits amounting to, it was alleged, $2\frac{1}{2}$ per cent. and even 4 per cent., were being made by the controlling houses in purchasing stores for the mines."

The Commission ascertained, after a full investigation, that it was the prevailing practice of the controlling houses to debit the mine with the actual cost of conducting the Buying Departments. The accounts for a period of one year were examined; the value of the stores bought by all the Groups for that year was approximately £10,500,000; the total commission and buying charges in respect of those purchases averaged ·52 per cent. In the case of one Group, which purchased stores to the value of £4,500,000, the buying cost to the mines was only ·22 per cent. As was to be expected, the Commission concluded that "an average cost of ·52 per cent., *i.e.* $1\frac{1}{4}d.$ in the £, is an exceedingly low buying cost." Though these figures relate to the experience of some years ago and are quoted because they were the subject of inquiry by, and received the confirmation of, a Government Commission, the same system is still in full operation and the average cost to the mines is certainly not higher than it was then. These facts, I suggest, throw an illuminating sidelight on the Group system in actual practice.

These are not, however, all the services the Group performs. The individual Groups have, of course, different systems, all of them efficient and successful, but differing both in respect of actual organisation and comprehensiveness to an extent commensurate with their needs. The Group with which I am best acquainted has a Medical and Sanitation Department under highly qualified professional direction, whose business it is to supervise, assist and co-ordinate medical and hygienic practice on the mines and in the native compounds; other activities are the maintenance of metallurgical and mechanical research laboratories and, as a further example, a separate Department concerned with the measuring and distribution of electric power and compressed air, the purchases of which, in the case of this Group alone, amount to £1,187,500 a year.

We come now to the matter of the cost imposed on the individual mines for the services the Group organisation renders. These services include all the work of the Head Office and the technical, secretarial, buying and other staffs I have detailed, and much else that I shall not attempt to enumerate. Here, again, the question of costs has been the subject of investigation by a Government Commission. I should emphasise that none of these official inquiries has ever been instituted in consequence of grievances entertained or criticism expressed by shareholders; the Government of the day has been moved to inquire into the affairs of the industry on numerous occasions, sometimes for

public reasons and more often because at the time the industrial situation or employment problems were regarded, rightly or wrongly, as having become matters of political importance. The Commission to which I have referred—the Low Grade Mines Commission—found that:

> "the witnesses who expressed the opinion that Group control and Head Office administration was an expensive and largely unnecessary incubus upon the mines were unable to produce any direct evidence in support of this view. The opinion was apparently held in some quarters that important and far-reaching economies amounting to several shillings per ton could be effected in this direction. We therefore went to some length in obtaining facts in regard to this matter. . . .
>
> "The Group organisation, in which a staff of experts in various branches . . . is maintained and placed at the disposal of the mines of the Group should obviously be advantageous to the individual mines. It tends to make available to all the mines of the Group the services of those men who have shown themselves most capable in their profession, and, if central control is not overdone, must be a more efficient and economic system than the maintenance of a similar but probably inferior staff by each mine. . . ."

The facts, as ascertained by the Commission, showed that the Head Office and administration expenses [1] for all the producing Companies on the Witwatersrand amounted to 6·3*d.* per ton milled. At the present time, these costs for the whole industry average even less than they did then. These figures and facts appear to me conclusively to prove that an exceptionally efficient and comprehensive administrative and technical organisation in the Mining Industry is maintained at remarkably low cost.

IV

The controlling Corporation, which makes the Group system possible, also performs services and undertakes large responsibilities of a financial, as distinct from an administrative, character. Under its auspices, new mining prospects are investigated, new mining fields are explored and new Companies are promoted.

[1] These expenses include the following charges:—Secretarial, Transfer, Buying, Consulting Engineers and other Head Office fees; London and Paris offices; Stationery, Printing, Advertising and Telegrams; Directors' and Auditors' fees and Sundries.

Existing Companies within the Group look to the Corporation for assistance in times of financial stress, and are usually able to secure it—as experience proves—on terms which would never be entertained by a Bank or similar financial institution. It is, of course, perfectly true that controlling Corporations are not in their business actions actuated by philanthropic or altruistic motives. They take big risks in the hope of ultimately securing commensurate rewards, but there is something additional to that consideration which affects the attitude of the Corporation towards the financial problems of the individual Company. It is the factor of prestige and good faith. The Corporation that has made itself responsible for the promotion of a mining enterprise and subsequently for its control and administration feels and accepts an exceptional measure of responsibility for seeing the subsidiary Company through financial trouble. Sometimes the best efforts and the utmost help fail to achieve success, but, on the other hand, numerous outstanding examples could be given where bold financial action has transformed unpromising and even desperate situations and converted into success many a mining enterprise that had trembled on the brink of failure and extinction.

V

Following upon my description of the Group system of administration, I must now, to complete the picture, give a brief outline of the Mining Industry in its representative capacity and of the activities of the industry where it functions as a whole. The Transvaal Chamber of Mines is an association of representatives of the gold and coal mining Companies of the Transvaal. It is designed by its Constitution to facilitate discussion of all matters of mutual interest, and to formulate, as far as may be feasible, a common policy in respect of such matters as employment conditions and industrial relationships, legislation and Government action, accident prevention, the minimising of the risks of phthisis, the provision of adequate supplies of native labour, and the management of certain subsidiary industries and organisations that serve the industry in general. The powers and functions of the Chamber of Mines are—in all important respects—exercised by a small supreme Executive known as the Gold Producers' Committee, which is composed of representatives of the Groups. Under the chairmanship of the President, for the time being, of the Chamber of Mines, assisted and advised by a staff of experienced and well-qualified officials, this Committee

decides all important questions of policy. The Chamber of Mines has no administrative or managerial authority so far as the Groups or the individual mines are concerned, and, in actual practice, the decisions of the Gold Producers' Committee are invariably decisions by the general consent of all the Groups and interests affected. Under the auspices of the Chamber various advisory Committees regularly function—the Technical Advisory Committee, comprising the chief Consulting Engineers of the Groups, and Committees which meet when required, representative of the Consulting Mechanical Engineers and Metallurgists, the Mine and Head Office Secretaries, the chief Buyers of the Groups, and certain others.

Closely related to the Chamber of Mines and under its control are two co-operative Corporations that respectively undertake all the recruitment and provision of native labour for the mines from British South Africa and Mozambique. There are over 200,000 native employees in the industry. Some indication of the scope and importance of the work is afforded by reference simply to the number of native workers concerned, but this, in itself, conveys but a small idea of all that is involved. Very few of the gold mines of the Witwatersrand could exist except upon the basis of the bulk of the physical labour being performed by natives who throughout the Gold Mining Industry are employed in relation to the white employee in the ratio of about nine to one. The conditions of employment for natives in the industry—taking wages, food, accommodation and medical attention into consideration—represent outstandingly the best standard in South Africa under which native workers are employed in large numbers. The Native Recruiting Corporation, which is responsible for the supply of British South Africa natives for the mines, and the Witwatersrand Native Labour Association, which handles the supply from the adjacent Portuguese territory of Mozambique, have an enormous field to cover in arranging for a regular and adequate flow of labour. The natives, before being engaged at their homes, are medically examined, the terms of their engagement are embodied in a contract which is explained to them by the Magistrate of the district, and transport from remote parts has frequently to be provided. On arrival in Johannesburg, the natives are accommodated at and pass through the great Central Compound—a Compound which has dealt with over 1,250,000 natives even in the last ten years—of the Recruiting Corporations, and, after all matters concerning passes and passports and further medical examination have been attended to, they are sent to the

mines for which they have chosen to work or to which, with their consent, they have been allotted. Full arrangements are also made for repatriation to their homes when periods of service have expired. While the natives are in employment, their interests receive organised attention. If they become medically unfit, they receive the best hospital and medical treatment. I may mention that the hospital accommodation for natives on the gold mines—provided by the mines themselves—consists of fourteen separate hospitals with some 2,400 beds.

Safe-keeping and transmission of money is arranged; an intelligence department deals with inquiries of a domestic nature regarding the natives' homes or relatives. In Mozambique the Witwatersrand Native Labour Association has, with the permission of the Portuguese authorities, made roads, built chains of sub-stations and rest camps leading to the central receiving depots, where the natives are examined and given suitable clothing and prepared for their journey to the Rand.

One satisfactory proof of the efficiency of the organisation, the confidence reposed in it by the natives and their satisfaction with conditions of employment, is the increasing number of natives who come to the mines without the intermediary of any recruiter, and the large percentage who renew their contracts over and over again. The cost of all the work involved in the recruitment of natives for the industry and all the other services performed by the two recruiting organisations amounts to 3·3*d*. per native shift worked on the mines.

The largest and best-equipped gold refinery in existence operates on the Witwatersrand through the medium of the Rand Refinery, Ltd., an undertaking established in 1921 and owned and controlled by the Mining Industry. In 1928 some 10,559,000 ounces of fine gold were refined, this total, which included gold from Rhodesia and the outside mines of the Transvaal, representing 54 per cent. of the whole gold production of the world. In addition, 1,000,000 ounces per annum of silver are extracted from the bullion and refined. The gold is marketed in conjunction with the South African Reserve Bank, whose effective co-operation with the industry in this important matter is not the least of the valuable services which the Reserve Bank, under wise direction, renders to South Africa. It may be of interest to mention that a competent authority has estimated that since its inception eight years ago the operations of the Rand Refinery have saved the Mining Industry more than £1,000,000.

An organisation is maintained for dealing with compensation

for injuries to employees caused by accidents arising out of and during the course of their work. This is the Rand Mutual Assurance Company, which includes every Mining Company of importance on the Rand. Practically the whole of the compensation in respect of accidents to mine employees is dealt with by the Company, which is managed by a Board of Directors representing the various Mining Groups. The advantage of these arrangements is that injured employees have their claims dealt with promptly and fairly in a spirit of sympathy by a Company which, representing the employers, does not concern itself merely with paying compensation claims, but tries to mitigate the consequences of injuries by supplying, free of charge, the most competent medical, surgical and other treatment. The Company deals with claims in a spirit of fairness rather than on fixed, rigid lines, and very few cases are referred to the Courts. It has paid out over a million and a quarter sterling in compensation to white workers since the Workmen's Compensation Act came into force.

It is not the policy of the industry to manufacture the commodities it consumes, except in a few instances where, because of special circumstances, it has been compelled to do so in order to secure large savings otherwise unprocurable. In general, the industry has been well served by the commercial and manufacturing community, and the only conspicuous case where it has undertaken manufacture on its own account is in connection with the production of certain largely-consumed steel products, and here the saving secured by the co-operative manufacturing enterprise, calculated on the basis of the cost of imported supplies, is estimated to be approximately £60,000 per annum.

I should like to tell of the other activities of the industry in its representative capacity—its large participation in the work of the world-famous Medical Research Bureau, for the initiation of which it was financially responsible; its provision of Miners' Phthisis Sanatoria, and its financial and general support of the Government Miners' Training Schools. Without, however, going into further details, there are two fact specially to be noted. The first is that the co-operative activities of the Mining Industry are greatly facilitated and, in my view, are only rendered possible in their present acceptable and effective form by the existence of the Group system; the second is that expenditure on the Chamber of Mines organisation and all the subsidiary undertakings—the native recruiting associations, the gold refinery, and the rest—is distributed through the Groups over the individual Companies that comprise the industry at cost and nothing more.

VI

Before concluding, I must, in advance, make reference to the comment, certainly to be expected from the critic, that, acceptable and successful as the Group system I have been describing may have proved on the Witwatersrand, it is, nevertheless, a system or an organisation that applies to an industry whose product is in universal and unlimited demand at more or less a fixed price, and that it does not therefore necessarily possess any interest for or promise any advantage to industrial groups concerned with the production of commodities under competitive conditions. Let me say at once that, in expounding and emphasising what I conceive to be the merits of Group administration in the Gold Mining Industry, I am not claiming that that form of industrial organisation is perfect or that, in essentials, it is unique. I do, however, suggest that its success on the Witwatersrand is undoubted and has not been dependent on the fact that the product of the industry is gold, which in popular estimation sells itself—an incorrect assumption, as it happens, for there are many complexities connected with the marketing even of gold. The financial Corporations that dominate the Gold Mining Industry have, however, many interests other than their interests in gold mines, and it is significant that the essentials of the Group system have been successfully applied to the administration of many of their other competitive enterprises.

A notable example is that of coal. The Coal Industry of the Transvaal—the output of which in 1928 amounted to 7,670,000 tons at an average pit-head price of 4*s.* 11·6*d.* per ton—is associated with the Chamber of Mines, and its administration under the Group system has found final expression in the organisation of an Association of Collieries—now of many years' standing—which fixes production quotas and controls domestic and export marketing operations and policy. The only point, however, that I wish to make is that the Group system has proved applicable, beneficially applicable, to the Transvaal Coal Industry, under competitive marketing conditions.

The new Platinum Industry of the Transvaal was inaugurated and has been developed under the Group system. The future of the Platinum Industry may perhaps be regarded as problematical, but one producing Company has already, in the course of operations extending over only about three years, sold platinum to the value of over £300,000, and everyone acquainted with the platinum price situation will acknowledge that the marketing

problem of the Platinum Industry is a delicate and difficult one.

There is evidence—to go further afield—of the success that has attended the broad application of the Group system to the oil and other enterprises in different parts of the world of the Corporations that figure prominently in the Gold Mining Industry of the Witwatersrand; and it may also be noted that the exploitation and development of the copper fields of Northern Rhodesia, whose potentialities are literally enormous, are in a large measure being carried out under substantially the Group system of control and administration.

JOHN MARTIN

Johannesburg.

APPENDIX

WITWATERSRAND GOLD MINING INDUSTRY

List of Producing Companies and Groups and their Production in 1928

	Tons milled.	Fine ounces declared.	Value. £.
Anglo-American Corporation			
Brakpan Mines, Ltd.	1,016,500	387,560	1,646,250
Springs Mines, Ltd.	830,600	403,869	1,715,526
West Springs, Ltd.	647,300	211,181	897,040
	2,494,400	1,002,610	£4,258,816
Anglo-French Exploration Co.:			
New Kleinfontein Co., Ltd.	612,900	139,261	£591,543
Central Mining-Rand Mines Group:			
City Deep, Ltd.	1,027,000	306,034	1,299,950
Cons. Main Reef Mines and Est., Ltd.	718,900	274,109	1,164,340
Crown Mines, Ltd.	2,611,000	853,734	3,626,433
Durban Roodepoort Deep, Ltd.	468,100	159,484	677,445
East Rand Proprietary Mines, Ltd.	1,685,700	440,848	1,872,602
Ferreira Deep, Ltd.	399,800	80,767	343,076
Geldenhuis Deep, Ltd.	774,500	168,888	717,392
Modderfontein B. Gold Mines, Ltd.	830,000	312,653	1,328,066
Modderfontein East, Ltd.	744,500	232,575	987,916
New Modderfontein G. M. Co., Ltd.	1,662,000	898,552	3,816,806
Nourse Mines, Ltd.	720,200	213,271	905,918
Rose Deep, Ltd.	663,400	137,970	586,059
Village Deep, Ltd.	659,500	181,369	770,407
Wolhuter Gold Mines, Ltd.	356,100	80,800	343,217
	13,320,700	4,341,054	£18,439,627
General Mining and Finance Corporation:			
Meyer and Charlton G. M. Co., Ltd.	202,700	53,413	226,884
Van Ryn Gold Mines Estate, Ltd.	464,800	116,993	496,955
West Rand Consolidated Mines, Ltd.	643,000	163,558	694,750
	1,310,500	333,964	£1,418,589
Johannesburg Consolidated Investment Co.:			
Government Gold Mining Areas	2,383,500	1,080,121	4,588,062
Langlaagte Estate and G. M. Co.	969,000	303,132	1,287,623
New Primrose G. M. Co., Ltd., Jan.–June	61,700	15,794	67,089
New State Areas, Ltd.	908,000	381,021	1,618,474
Randfontein Estates G. M. Co., Ltd.	2,500,000	567,707	2,411,466
Van Ryn Deep, Ltd.	759,000	300,366	1,275,874
Witwatersrand G. M. Co., Ltd.	630,000	132,476	562,722
	8,211,200	2,780,617	£11,811,310
New Consolidated Gold Fields:			
Robinson Deep, Ltd.	918,400	254,033	1,079,063
Simmer and Jack Mines, Ltd.	898,200	216,774	920,798
	1,816,600	470,807	£1,999,861
Union Corporation:			
Geduld Proprietary Mines, Ltd.	979,000	305,980	1,299,720
Modderfontein Deep Levels, Ltd.	530,300	280,246	1,190,409
	1,509,300	586,226	£2,490,129
Sundry Companies:			
Luipaardsvlei Est. and G. M. Co., Ltd.	244,200	63,207	268,486
Witwatersrand Deep, Ltd.	525,300	122,952	522,267
	769,500	186,159	790,753
Miscellaneous		66,490	282,432
Total—Witwatersrand	30,045,100	9,907,188	£42,083,060

INTERCHANGE BETWEEN SOCIAL CLASSES

DESPITE the important rôle which the idea of social class has played both in social theory and in political movements, very few scientific studies exist of the nature of class differentiation and its conditions. Marx and his followers have sought to relate the various forms of social stratification to modes in the forms of production, but it would seem on an inadequate inductive basis, at any rate as far as modern conditions are concerned. In recent times efforts have been made, under the influence of biological ideas, to determine the relation between forms of social groupings and differences in physical and mental characters between individuals and groups. These are held to afford material for the agencies of social selection and thus to influence social differentiation in greater or lesser degree. But studies on these and other lines have suffered from the absence of an adequate classification and the lack of agreement with regard to the criteria of class, which makes effective comparison of the results arrived at by different investigators extremely difficult and precarious.

The difficulties of classification are due, among other things, to the fact that social differentiation is psychologically conditioned and that as yet there exists no generally accepted technique for the observation, analysis and record of the behaviour of social groups in relation to one another. When psychological analysis has been attempted at all, it has generally been in the direction of determining the ends or interests which classes have in common, with the result that writers have tended to deny the reality of class distinctions or to minimise them, in cases in which it was not possible to point to definite cohesive groups clearly aware of their interests as groups. But social classes are not associations to be defined by their ends or purposes, but groups of individuals related to one another by much vaguer, though not less powerful psychological attitudes, and which only under certain conditions come to be conscious of a class purpose. It is extremely difficult to say what one is conscious of when one is class conscious, but the following psychological factors would seem to form part of the situation. There is firstly a " feeling of kind " as it may be called, in relation to members of one's own class, a confidence that one

can meet them on equal terms. There is, secondly, a feeling of inferiority in relation to those above in the hierarchy, and, thirdly, a feeling of superiority in relation to those below. All these states of mind, which psychologists would interpret in terms of the theory of "sentiments" are extremely complex, partly because of the large number of gradations in the social hierarchy, the continual intersection of levels in mobile societies, and partly because the sentiments of equality, inferiority and superiority admit of subtle and intricate forms of inversion and compensation. *Prima facie* the determinants of these feelings and attitudes are to be found in differences in mode of life, educational standing, amount and intimacy of association between members of different groups, and the various factors, political and economic, which make for confidence and assertiveness on the one hand and submissiveness and negative self-feeling on the other. It must be confessed that scientific sociologists have hardly even begun to study these matters, which are often treated with greater insight by novelists and essayists.

In the present investigation [1] I have endeavoured to deal with a small portion of this large question by seeking to obtain a measure of the degree of movement between social classes, the reality and importance of the "social ladder." In what is no more than a preliminary inquiry, I have had to content myself with taking fairly readily identifiable groups, namely those which are indicated by mode of occupation, on the ground that from the latter may generally be inferred a person's mode of life and educational standing and therefore his social class, if we understand by this term a group of people who meet one another on equal terms. I have distinguished the following categories:

Class I. includes professionals, employers I. own account I.
Class II. includes employers II, own account II, salaried.
Class III. includes wage earners, skilled, semi-skilled and unskilled.

I found subsequently that my classification coincided very largely with that adopted by the Registrar-General (*Decennial Supplement*, Pt. II, 1921). He distinguishes five social grades:— 1, Upper and Middle. 2, Intermediate. 3, Skilled. 4, Intermediate. 5, Unskilled. The details supplied in the report referred

[1] I am greatly indebted to Mrs. Cressmann (née Loch) for her invaluable and untiring assistance throughout this laborious piece of work. Thanks are also due to Mr. J. Rumyaneck who helped me in the initial stages of the inquiry.

to have been of great assistance to me in dealing with my data. These include :—

A. Information derived from answers to a Questionnaire.
B. MS. records of admissions to Lincoln's Inn.
C. Information derived from Prof. Bowley's investigations into the social conditions of five towns.

A. The Questionnaire [1]

This was circulated in the years 1927–8 among University teachers and students, teachers in training colleges, second-class civil servants, clerks and other salaried officials and wage earners. They were asked to state their occupation, *i.e.* the kind of work they did, and their employment, *i.e.* whether they were employers or working on their own account, and if they were working for others whether they were salaried or wage earners, and to supply similar information relating to their fathers, grandfathers paternal and maternal, brothers and sisters if working. The following table shows the occupational range and sex distribution of those who filled in the form :

	Total.	Women.
Student group	580	252
Teachers group	872	537
Professional	113	21
Employers I	2	—
Employers II	29	1
Own account II	33	5
Salaried	765	88
Wage earners	450	27
	2,844	931

[1] I wish to thank the following for their kind co-operation in the circulation and collection of the questionnaire forms : The Principals of Avery Hill Training College, The London Day Training College, The Diocesan Training College, Bristol, The Training College, Darlington, St. Peter's College, Peterborough. Whitelands Training College, London ; The Provost of University College, London ; The Organising Secretary of the Extension Board, University of London : The Students' Union of the London School of Economics ; Mrs. H. Reid of Bedford College, London ; Prof. J. E. Neale ; Miss Monkhouse ; Mr. Arthur Pugh of the Iron and Steel Trades Confederation ; Mr. A. G. Walkden of the Railway Clerks' Association ; Mr. C. T. Cramp of the N.U.R. ; Mr. William C. Keay of the Federation of Professional Workers ; Mr. R. H. Tawney.

The principal results are set out in Tables I–VI.

Table I

Comparison of Present Generation and Father's Occupation

PRESENT GENERATION

		Professionals.	Students.	Employers I.	Independents.	Employers II.	Own Account II.	Salaried (Miscellaneous).	Salaried (Teachers).	Wage Earners.	Totals.
FATHERS	Professionals	35	164	1	—	—	1	38	62	3	304
	Employers and Own Account I	9	16	1	—	1	—	6	8	—	41
	Independents	2	2	—	—	—	—	1	—	—	5
	Employers II	20	109	—	—	15	5	91	170	20	430
	Own Account II	8	43	—	—	2	10	77	73	61	274
	Salaried	28	171	—	—	3	—	182	249	37	670
	Skilled	7	69	—	—	6	12	276	246	180	796
	Semi-skilled	3	3	—	—	1	3	58	46	115	229
	Unskilled	—	—	—	—	—	—	17	4	20	41
	Totals	112	577	2	—	28	31	746	858	436	2,790[1]

[1] It will be observed that the totals in these tables differ. This is due to the fact that many of the forms contained incomplete or indefinite entries, with the result that several had to be altogether omitted, while some, though utilisable for certain tables, were not available for others.

Table II

Comparison of the Occupations of Fathers and Paternal Grandfathers

FATHERS

		Professionals.	Employers I.	Independents.	Employers II.	Own Account II.	Salaried.	Skilled.	Semi-skilled.	Unskilled.	Totals.
PATERNAL GRANDFATHERS	Professionals	141	8	1	14	10	25	7	—	—	206
	Employers and Own Account I	12	9	1	6	1	8	2	—	—	39
	Independents	9	1	1	2	1	7	3	—	—	24
	Employers II	49	14	2	243	56	126	90	11	4	595
	Own Account II	21	4	—	56	105	109	137	32	3	467
	Salaried	34	4	—	32	17	145	43	8	—	283
	Skilled	11	—	—	38	39	136	288	52	10	574
	Semi-skilled	6	—	—	7	11	35	94	92	8	253
	Unskilled	1	—	—	2	2	3	12	4	7	31
	Totals	284	40	5	400	242	594	676	199	32	2,472

TABLE III

Comparison of the Occupations of the Fathers and Maternal Grandfathers of the Present Generation

FATHERS

		Professionals.	Own Account & Employers I.	Independents.	Employers II.	Own Account II.	Salaried.	Wage Earners. Skilled.	Wage Earners. Semi-skilled.	Wage Earners. Un-skilled.	Totals.
MATERNAL GRANDFATHERS	Professionals	93	8	—	26	8	35	8	—	—	178
	Employers I and Own Account I	21	5	—	4	4	6	2	—	—	42
	Independents	3	2	1	8	1	9	6	—	—	30
	Employers II	84	13	3	169	55	161	92	14	4	595
	Own Account II	18	3	—	39	78	96	119	31	5	389
	Salaried	36	3	—	39	23	127	57	12	2	299
Wage Earners	Skilled	17	2	—	62	52	129	263	50	7	582
	Semi-skilled	3	—	—	23	22	26	106	77	6	263
	Unskilled	—	—	—	..	1	3	8	8	6	26
	Totals	275	36	4	370	244	592	661	192	30	2,404

TABLE IV

Table comparing the Occupations of Paternal and Maternal Grandfathers

PATERNAL GRANDFATHERS

		Professionals.	Employers and Own Account I.	Independents.	Employers II.	Own Account II.	Salaried.	Skilled.	Semi-skilled.	Unskilled.	Totals.
MATERNAL GRANDFATHERS	Professionals	69	8	4	46	16	17	7	1	–	168
	Employers and Own Account I	20	7	2	6	3	3	2	—	—	43
	Independents	6	5	3	1	6	2	1	—	—	24
	Employers II	58	10	6	254	78	60	83	11	3	563
	Own Account II	12	2	1	52	133	33	92	29	3	357
	Salaried	22	5	3	61	53	67	64	5	1	281
Wage Earners	Skilled	5	2	3	77	98	52	195	90	9	531
	Semi-skilled	1	—	1	35	41	10	66	86	7	247
	Unskilled	—	—	—	3	4	2	10	3	4	26
	Totals[1]	193	39	23	535	432	246	520	225	27	2,240

Note.—For the purposes of this table the following forms have been omitted :—

(i) All forms in which the occupations of the Fathers of the present generation have not been given.

(ii) All forms in which the occupations of the Paternal Grandfathers of the present generation have not been given.

(iii) All forms in which the occupations of the Maternal Grandfathers of the present generation have not been given.

(iv) Queried (*i.e.* indefinite) forms for both Grandparents. For detailed numbers of omissions see Tables V and VI.

Table V

Table comparing the Occupations of the Present Generation with that of their Paternal Grandfathers

PRESENT GENERATION

		Professionals.	Students.	Employers and Own Account I.	Employers II.	Own Account II.	Salaried. Miscel-laneous.	Salaried. Teachers.	Wage Earners.	Totals.
Paternal Grand-fathers	Professionals	30	100	2	1	2	32	39	3	209
	Independents [1]	2	9	—	—	1	3	10	2	27
	Employers and Own Account I	9	14	—	1	—	4	9	1	38
	Employers II	31	157	—	8	3	157	209	33	598
	Own Account II	12	90	—	8	13	142	119	87	471
	Salaried	11	81	—	3	—	74	100	16	285
Wage Earners	Skilled	7	87	—	2	9	162	187	126	580
	Semi-skilled	3	13	—	2	1	88	45	102	254
	Unskilled	1	3	—	—	—	10	4	13	31
	Totals	106	551	2	25	29	672	722	383	2,493

[1] No Independents in present generation.

Table VI

Table comparing the Occupations of the Present Generation with that of their Maternal Grandfathers

PRESENT GENERATION

		Professionals.	Students.	Employers and Own Account I.	Employers II.	Own Account II.	Salaried. Miscel-laneous.	Salaried. Teachers.	Wage Earners.	Totals.
Maternal Grand-fathers	Professionals	18	89	1	2	4	29	34	1	178
	Employers and Own Account I	9	21	1	—	—	6	5	1	43
	Independents [1]	2	7	—	1	—	10	9	1	30
	Employers II	44	157	—	12	1	154	193	37	598
	Own Account II	12	66	—	3	11	134	88	80	394
	Salaried	11	86	—	1	2	67	115	19	301
Wage Earners	Skilled	7	97	—	3	2	171	183	124	587
	Semi-skilled	5	19	—	1	4	76	69	93	267
	Unskilled	—	1	—	—	—	7	1	17	26
	Totals	108	543	2	23	24	654	697	373	2,424

[1] No Independents in present generation.

In order to facilitate comparison I have grouped the subdivisions into three classes and expressed the results in percentages. Class I corresponds to the Census division Upper and Middle and

includes professionals, students, employers I, own account I and independents. Class II corresponds to the Census division intermediate II and includes employers II, own account II, salaried officials, elementary school teachers. Class III includes the working class and corresponds to the Census divisions, skilled, intermediate and unskilled.

MOBILITY OF OCCUPATION TABLES

Tables in Percentages

Table I

Comparison of the Occupations of the Present Generation with those of their Fathers.

PRESENT GENERATION

		Class I.	Class II.	Class III.
Fathers	Class I	33·3	7·0	0·69
	Class II	54·9	52·7	27·1
	Class III	11·9	40·2	72·3

Table II

Comparison of the Occupations of Fathers and Paternal Grandfathers of the Present Generation.

FATHERS

		Class I.	Class II.	Class III.
Paternal Grand-fathers	Class I	55·6	6·0	1·3
	Class II	38·9	71·9	36·2
	Class III	5·5	22·1	62·5

Table III

Comparison of the Occupations of Fathers and Maternal Grandfathers of the Present Generation.

FATHERS

		Class I.	Class II.	Class III.
Maternal Grand-fathers	Class I	42·2	8·4	1·8
	Class II	50·8	65·3	38·1
	Class III	7·0	26·4	60·1

Table IV

Comparison of the Occupations of the Paternal and Maternal Grandfathers of the Present Generation.

PATERNAL GRANDFATHERS

		Class I.	Class II.	Class III.
Maternal Grand-fathers	Class I	48·6	8·2	1·4
	Class II	46·7	65·2	37·7
	Class III	4·7	26·6	60·9

Table V

Comparison of the Occupations of the Present Generation with those of their Paternal Grandfathers.

PRESENT GENERATION

		Class I.	Class II.	Class III.
Paternal Grand-fathers	Class I	25·1	7·0	1·6
	Class II	57·7	57·7	35·5
	Class III	17·2	35·2	62·9

Table VI

Comparison of the Occupations of the Present Generation with those of their Maternal Grandfathers.

PRESENT GENERATION

		Class I.	Class II.	Class III.
Maternal Grand-fathers	Class I	22·7	7·2	0·80
	Class II	57·6	55·9	36·5
	Class III	19·8	37·0	62·7

The tables show that 12 per cent. of the present generation in Class I had parents in Class III, the corresponding figure for the last generation being 6. If one generation is omitted and the present generation compared with the grandparental the figure is about 18. It should be noted that those classed as "professionals" in the present generation include numerous students whose future occupation is indeterminate. The movement from Class II to Class I is naturally greater. The results may be summarised thus:

UPWARD MOVEMENT

	From III to I.	From II to I.	From III to II.
Present generation and fathers . .	12	55	40
Fathers and grandfathers . . .	6	45	24
Present generation and grandfathers .	18	57	36

The downward movement may be measured by ascertaining the proportion of those at present in the lower classes who originated in the upper. The figures are as follows:

DOWNWARD MOVEMENT

	From I to III.	From I to II.	From II to III.
Present generation and fathers . .	0·6	7	27
Fathers and grandfathers . . .	1·5	7	37
Present generation and grandfathers .	1·4	7	35

The proportion who remain in their own class is indicated in the following table:

	I.	II.	III
Present generation and fathers . .	33	52	72
Fathers and grandfathers . . .	48	68	61
Present generation and grandfathers .	23	56	62

In considering these figures it may be useful to bear in mind the estimate made by the Registrar-General of the proportion of the classes distinguished by him per cent. of the occupied population.[1]

[1] Cf. Registrar-General's *Decennial Supplement*, Pt. II, p. viii.

All classes.	I.	II.	III.	IV.	V.
100	2·93	20·35	43·47	20·45	13·40

Some indication of the extent of intermarriage between the groups in the grandparental generation may be obtained from Table IV. It will be seen that in Class I, 4 per cent. of the maternal grandfathers were wage earners. In Class III only 1·4 were professional, while the corresponding figures for their own class and for Class II were fairly even, viz. 48 and 46.

Upon the whole the following conclusions suggest themselves. There is evidence of upward mobility from Class III to Class I, and this seems to be increasing as compared with the past generation. This does not bear out the view that the process of recruiting talent from the lower classes to fill the gaps in the upper has reached a point of exhaustion (cf. McDougall, *National Welfare*, p. 162). Further, on the evidence before us there is very little downward mobility from I to III, and this is not in harmony with the suggestion often made that the lower classes are recruited sensibly from the failures of the upper (cf. Sorokin, *Social Mobility*, p. 457). Bearing in mind the proportion of the classes in the occupied population, it is indeed evident that the ladder can only lift relatively small numbers. There seems thus little ground for the hypothesis of " drainage " and no indication that the reserves of ability in the lower classes are being depleted.

B. Admissions to Lincoln's Inn [1]

I have endeavoured to obtain information regarding the social strata from which the professions are recruited, but the only case in which I have obtained reliable data related to the legal profession as judged by the entries to Lincoln's Inn. The following table shows the occupations of the parents of those who were admitted to the Inn between the years 1886–1927 (with two breaks, 1894–1903 and 1912–18).

It will be noted that there is on the whole but little change in the proportions in which the different classes contribute to the entries in the period reviewed, except that there is some decline in the contribution made by the clergy in recent times and that there are signs of the working class beginning to creep in.

[1] I wish to thank the Treasurer and Governing Body of Lincoln's Inn for their kind permission to copy the MS. records of admissions to the Inn.

Table A

Table (in Percentages only) of the Occupations of the Fathers of those admitted to Lincoln's Inn between 1886 *and* 1927, *except for the years,* 1894–1903, *and* 1912–1918. *Total Admissions,* 1,268. (*This total does not include foreign or colonial students nor those apparently brought up abroad.*)

Period Covered.	Class I.[1] "Upper and Middle."						Class II. Intermediate.			Class III.	Average *present age* of those admitted.
	Legal Professions.	Clerical Professions.	Other Professions.	"Gentlemen."	Employers I.	Own Account I.	Employers II.	Own Account II.	Salaried.[2]	Skilled Wage Earners.	
1886–1889 *216* Admissions	22·7	14·4	20·8	23·2	6·5	0·46	8·3	0·93	2·8	—	65-56 years of age
1890–1893 *215* Admissions	28·8	14·4	15·4	20·5	7·9	0·93	10·7	0·47	0·93	—	61-57 years of age
1904–1908 *255* Admissions	22·4	9·8	15·7	33·3	2·4	0·78	12·2	—	3·1	0·40	48-45 years of age
1909–1913 *173* Admissions	18·5	6·9	27·8	17·9	4·6	2·3	11·6	0·58	9·8	—	46-38 years of age
1919–1922 *190* Admissions	20·0	10·0	20·0	27·4	4·7	1·6	8·4	2·6	4·7	0·53	37-33 years of age
1923–1927 *219* Admissions	25·6	3·7	24·7	17·8	8·2	3·7	9·6	0·92	4·1	1·8	31–25 years of age

[1] The Classes used are those employed in the Census.
[2] This category includes teachers, other than University Teachers.

Table B

Table (in Percentages only) of the Occupations of the Fathers of the Benchers of the Middle Temple, between the years 1886–1912.

No. of Benchers.	Class I.					Class II.			Class III.
	Legal Professions.	Clerical Professions.	Other Professions.	Employers and Own Account I.	"Gentlemen."	Employers II.	Own Account II.	Salaried.	Wage Earners.
76	22·4	11·8	11·8	13·2	23·7	13·2	2·6	1·3	—

C. Professor Bowley's Data

My third set of data is derived from the cards which Professor Bowley kindly put at my disposal giving information of the social conditions of working-class populations in five towns compiled in the surveys made by him in 1924. The occupations of the workers have been classified into the five main categories employed by the Registrar-General. The nature of the occupation rather than the rate of wages has been regarded throughout as the basis of classification. This has been observed as much in the case of

young workers as in the case of adults, and apprentices to skilled trades have been reckoned as skilled, whatever their wage rates. The high wages paid to labourers as compared with those paid to skilled men in many cases made such a method necessary. Female workers have been graded on the same basis as men as regards skill, *e.g.* a woman weaver or cotton spinner has been graded as skilled without reference to the difference in payment between male and female weavers and spinners.

Of the many interesting points suggested by these tables attention may be drawn to two. Firstly the proportion of children of the working class rising to Class II varies from 4 per cent. from the unskilled parent to 10 per cent. from the skilled; whilst that rising to Class I is on this information negligible. Secondly, the notion that the unskilled form a stable group is not borne out by these figures, in view of the fact that only 18 per cent. of their children remain in that class, the bulk going to the skilled. These conclusions are subject to the qualification that the cards gave information only of the children who lived at home at the time of the survey and that the classification was in many instances difficult.

Occupations of Male *Children compared with those of their Fathers, in* 1924. (*Bolton, Northampton, Reading, Stanley, Warrington.*)

	Father's Social Class.	Class V. Unskilled Children	Class IV Intermediate Children	Class III Skilled Children	Class II. Intermediate Children	Class I. Upper and Middle Children	Total No. of Children
Whole Numbers.	Unskilled V Total 270	81		130	14	1	278
	Intermediate IV Total 254	45	82	130	13		270
	Skilled III Total 673	95	85	433	59		675
	Intermediate II Total 49	4		22	20		48
	Upper and Middle Class Total 2	—		4			
	Total 1,248						Total 1,276
The same Table in percentages only.	Unskilled V	29·1	18·7	46·7	5	0·37	278
	Intermediate IV	16·7	30·4	48·2	4·8	—	270
	Skilled III	14·1	12·6	64·2	8·7	0·45	675
	Intermediate II	8·3	4·2	45·8	41·7	—	48
	Upper and Middle Class	—	—	80	—	20	5
							Total 1,276

Occupations of Children compared with those of their Fathers for Five Towns in 1924. (*Bolton, Northampton, Reading, Stanley, Warrington.*)

Father's Social Class.	Class V. Unskilled Children.	Class IV. Intermediate Children.	Class III. Skilled Children.	Class II. Intermediate Children.	Class I. Upper and Middle Class Children.	Total No. of Children.
Unskilled V Total 270	18·1	24·0	53·7	4·0	0·19	520
Intermediate IV Total 254	11·2	32·8	49·8	6·3	—	464
Skilled III Total 673	8·3	16·8	64·7	10·0	0·25	1,225
Intermediate II Total 49	5·3	5·3	51·3	38·2	—	76
Upper and Middle Total 2	—	—	83·3	—	16·7	6
Total 1,248						Total 2,291

Taken together with the conclusions suggested under the previous sections they confirm the view that the social ladder so far lifts only relatively small numbers. The results derived from the three sets of data are not, of course, comparable. B and C give information referring to two generations only, whilst A deals with three. B concerns only one branch of a single profession and C is an almost exclusively working-class sample, while A covers all classes. Yet the results so far as they go are not incongruent. The conclusions relating to the movement between Classes II and III and between II and I are not stressed, as the classification is difficult. In dealing with the more clear-cut distinction between Class I and Class III, it should be borne in mind that in C we are estimating the proportion of working class children who rise, whilst in A we estimate the proportion of people at present in Class I who originated in Class III, and remembering the proportions of these classes in the general populations the conclusions seem compatible. It would seem that there has been an increase of mobility upwards in the present generation, whilst the downward movement is slight and nearly constant during three generations.

MORRIS GINSBERG

THE HISTORY OF THE MINISTRY OF FOOD

SIR WILLIAM BEVERIDGE'S contribution to the *Carnegie Economic and Social History of the World War* [1] is certainly one of the most notable and authoritative volumes in this very remarkable collection. Beveridge writes with unique authority on his subject. He was in the Food Ministry from its inception until its war task was done and its functions had begun to be liquidated. Indeed, his initiative whilst Assistant Secretary to the Board of Trade was largely responsible for bringing the Ministry into existence. During the whole of the time he was either Second Secretary or Permanent Secretary, and as such participated in every important discussion on policy in the Ministry or in the Cabinet. He directly administered himself, too, the Central Secretariat and two other of the eight main Divisions into which the Ministry's work was divided. In the collection and preparation of much of the documentary material for this volume he had, moreover, the inestimable advantage of the late Sir Edward Gonner's indefatigable labours and shrewd and well-balanced judgment. He did not actually sit down to write until two or three years after he had left the Civil Service, and was able in the serener atmosphere of London University to take a more objective view of many problems in the solution of which he had played so distinguished a part. Further, the work of other writers on particular aspects of the problem with which he was dealing, notably Mr. E. M. H. Lloyd's book *Experiments in State Control at the War Office and the Ministry of Food*, enabled him to supplement his information and contrast his own conclusions.

Beveridge's book gives evidence in every chapter of those powers of acute analysis and criticism which his colleagues learnt to respect. In the many controversies on general policy, on administration and on organisation which constantly raged in a Ministry faced with urgent problems, Beveridge was naturally often in conflict with one or other of his colleagues. But none of us could desire a better and more scrupulous presentation of the issues and of the essential facts which governed them.

[1] *British Food Control.* By Sir W. H. Beveridge, K.C.B. London: H. Milford. Pp. xx + 446. 17*s.* 6*d.* (Economic and Social History of the World War, British Series.)

Beveridge describes the problems which the Government had to face in the early days of the war as supplies became uncertain and prices began to rise. He shows how their attempts to influence food prices by friendly admonition of traders and consumers fell flat. He cannot avoid a certain ironic humour in dealing with the beginnings of the Food Ministry, when he himself and Sir Henry Rew assisted Lord Devonport—so far as the latter was prepared to be assisted by anybody—to issue Orders fixing maximum prices, which were quite impossible of enforcement without hopelessly deranging supplies. The real work of food control only began in the middle of 1917, when the Ministry was reconstructed and Lord Rhondda, Mr. Clynes, Mr. U. F. Wintour and others came to supplement his efforts, with a conviction that prices could only be controlled if distribution was also undertaken, and a determination, whatever the difficulties, to carry such a policy through. Beveridge himself had for weeks been endeavouring to make the Government understand this elementary principle of economic administration. Thence he carries the story stage by stage, contrasting the methods adopted in controlling various groups of home and imported supplies. He describes the vast administrative machine by means of which trade after trade was rapidly brought under State supervision and, in a number of case, State operation. He sets out admirably the theory and practice of price control as the Ministry itself learnt it in the hard school of experience. He leads up to the point when, in the latter part of 1918, 85 per cent. of all the food consumed by civilians in this country was bought from abroad or from the producer here and sold by the Ministry of Food. As *The Times* truly said, "The Ministry of Food was the greatest trading organisation the world has ever seen." Its turnover reached the enormous total of £900,000,000 sterling a year. It had its representatives in every food-producing country in the world from which supplies were obtainable. There was not a retail shop in the kingdom which sold any sort of food that did not depend for its stocks from day to day on the smooth and accurate working of the ministerial machine. And, as Beveridge says, the Ministry of Food, "suppressing private enterprise, completely accomplished what private enterprise in the country could never have accomplished. The British people were fed not only better and more cheaply than without the Ministry they could possibly have been fed in the war, but probably on the whole better than before the war."

Many of the Ministry's problems were of a purely ephemeral

kind, arising directly out of special war conditions. The methods and detailed organisation used for controlling flour mills or livestock or in rationing, are interesting historically. But they have little relation to problems likely to face the Governments in these days. Nevertheless, some of the problems with which food control had to deal have a bearing on those which are emerging under post-war conditions. Beveridge in his most interesting chapter on "The Lessons of Food Control" tends to under-rate this point. He is obviously and perhaps rightly anxious to avoid any charge of exaggeration.

The main lesson of British food control is that State trading in food on a national scale is practicable, and that in times of prolonged shortage it is necessary. During the war, despite all the intrinsic difficulties, the British people ate on the whole a little better than before the war.

> "As an experiment in public administration, food control in this country on the whole was a success, there was no serious breakdown; there were unexpected triumphs; there was substantial achievement of all main objectives in a novel field of public activity bristling with complex problems."

But while, as experience showed, complete control of food by the Government rather than by private enterprise was indisputably advantageous in war, does private enterprise, Beveridge asks, remain as indisputably preferable to control in peace as once it seemed to be? He himself, after carefully weighing the arguments, records his

> "personal doubt of any gain either to consumer or producer from public regulation of food supply in peace, that would repay the cost of the vast organisation involved, or justify diversion to it of any of the limited store of political energy and ability needed for more urgent problems, or outweigh the risk of bribery by subsidies."

He bases this final conclusion on the essential difference between normal peace-time circumstances and the war conditions with which the Ministry had to deal. But if war ever occurred again there can be no doubt that one of the first actions of the Government should be to bring into operation at the very beginning the principles of organisation and control to which the Ministry laboriously attained after four years of war.

The chief merits of control in war conditions are admittedly connected with prolonged and serious shortage of supplies. In

normal circumstances, so Beveridge argues, the sources of supply are so widely spread over so many continents and so many different climates that there is reliable security against shortages. He admits the danger to consumers arising from combinations of food producers or food traders. But he has a fervent belief in the ultimate power of competition to thwart their efforts. He thinks also that there are so many possibilities of substituting one foodstuff for another that any prolonged success in unduly keeping prices up is impossible. He is a little sceptical as to the advisability of stabilising prices by Government purchases and supplies, and inclined to the view that the producers would gain more from this than the consumers.

He is, of course, right in his assumption that except in war the degree of shortage which gave the Food Ministry its main justification is unlikely to occur. But shortage is a relative term. Smaller margins are now of far greater importance than they used to be. Food prices become of greater economic significance nationally as the struggle for export markets increases in intensity. He tends also, as it seems to me, to under-estimate the powers of trade combinations. Even since the book began to be written there has been a rapid development in many of the food trades of combinations of sufficient power and resources to take much away from the force of his argument in this connection. The development in the Dominions of the Co-operative Pools for marketing wheat, the creation of export monopolies by legal enactment in Australia, South Africa and, of course, in Russia, and the concentration of the grain export trade, apart from Co-operative and Governmental organs, in three or four great international firms, coupled with a rapid trustification of the milling industry in this and other countries, have transformed the world grain trade so that it is now vastly different from what it was before the war or when Beveridge himself was directly in contact with its problems. In the oils and fats trade something approaching a world monopoly has been created since the war. The meat combines existed before the war, and there has been no diminution in their powers. Internally the strength of the milk distributors against farmers, and even against the Government, has recently been demonstrated. The Milk Combine has buttressed its power by a grip on the connected industries. In all these cases not only has competition to a great extent now ceased to operate as a corrective on prices, but the possibility of competition in the future is immensely discounted by the enormous financial resources that would be thrown into the scale against any newcomer.

To what extent popular opinion is yet prepared to acquiesce in the responsibilities which Government interference in these matters would involve is another question. One lesson that emerges unchallenged from this description of war-time experience is the impossibility and danger of half-measures. It is all or nothing. The control of prices, as Beveridge points out, had in practically every case to be founded upon control of supplies, and as a rule to be accompanied by rigid control of distribution. "Of all the schemes tried," he says, for example, in regard to potatoes, "the most thorough was also the most successful." Experience showed almost without exception that the mere fixation of maximum prices without responsibility for securing that the supplies which were available were dispatched to the quarters in which they were needed, led inevitably to disorganisation and to the creation of more difficulties than it removed. At the end of the war, when trading interests and a large section of public opinion, rightly or wrongly, insistently demanded the rapid liquidation of control, the Profiteering Act of 1919, which strove to limit interference to publicity and prosecution for alleged excessive prices, demonstrated plainly by contrast how things ought not to be done. As Beveridge said, it made no appreciable difference either to traders or to the course of prices. "It was mere window-dressing." It is worth while at this time, when again the public is beginning to be concerned by excessive profits in the food trades, and to demand that the Government should defend the interests of the consumer, that this vital lesson of all food control experience in this and other countries should be constantly pressed home.

The internal organisation of the Ministry offers experience of great value to the student of public administration. It was the last of the War Ministries to be organised, and it had the advantage of being able to learn something from the misfortunes of the others. The association of expert Civil Servant administrators with no special technical knowledge, with business men who had no administrative experience, was a problem which, for example, had wrecked the efficiency of many Departments of the Ministry of Munitions. Lord Rhondda and Mr. Wintour solved this difficulty in a manner which worked to the general satisfaction both of the Civil Servants and the business men. The technical expert in each trade had full detailed responsibility for the executive action taken. But over each group of connected trades a Civil Servant presided, whose job it was to maintain a coherent policy, suited to the trades concerned, but in general accord with

the financial and administrative plan of the Ministry as a whole. In case of serious disagreement, the business expert had the right to appeal with his Civil Servant chief direct to the Food Controller and the Permanent Secretary. It says much for the system, and something for the tact and skill of the men who worked it that this right was hardly ever claimed in the whole history of the Ministry.

Much can be learned also from the Ministry's experience in regard to financial responsibility in connection with Government trading. Treasury control of the peace-time kind was quickly found to be quite impracticable where great Government trading operations were concerned. But with the aid of Sir Harry Peat and the distinguished chartered accountants who assisted him, a scheme of costings supervision was worked out which took account of the commercial considerations involved, but secured ultimate responsibility to Parliament for expenditure.

One other administrative point is of some current interest. In its issue of statutory Orders and Regulations, the Ministry, utilising Defence of the Realm Act powers, had to perform legislative and judicial functions which—vide the Lord Chief Justice—are an unwarrantable intrusion on the powers of Parliament and of the Judiciary. No other course was in the circumstances possible. But the establishment of the Consumers Council did provide a check against the abuse of such powers. The Council, composed mainly of representatives of Labour and of the Co-operative Movement, was in almost constant session in the Ministry, and was entitled to receive full information not only on the effect of existing orders and regulations, but also on every new proposal before it came into operation. It could summon any officer of the Ministry before it, from the Food Controller downwards, in order to receive explanations or information on particular points of current administration. It made its representations and its criticism direct to the Minister, and privately or publicly as seemed best in the circumstances. It had no executive power, but unlimited powers of criticism and suggestion. It did not diminish the responsibility of the Ministry, but it provided a constant check on bureaucratic enthusiasm and administrative incompetence. It was, indeed, a valuable part of the machinery of Government operation of trading enterprises, which deserves attention in the consideration of other problems now or soon likely to be before the country.

E. F. Wise

REVIEWS

English Poor Law History. Part II: The Last Hundred Years. By SIDNEY and BEATRICE WEBB. Two vols. (Longmans. 36*s*. net.)

IN a second part consisting of well over a thousand pages, Sidney and Beatrice Webb have brought their *English Poor Law History* down from 1834 to the passing of the Local Government Act of 1929. One volume sufficed for all the earlier history up to 1834: it has taken two stouter volumes to bring the record up to the present day. This, however, is not because the authors have assumed the function of annalists, and set out to record in minute detail the passing incidents of Poor Law administration during the past century. Indeed, if their book has a fault of method, it is that the consecutive record of events does not stand out clearly enough. A large part of the work is concerned rather with separate problems than with the continuous history of Poor Law development; and, though the necessary material is there, it is not always easy to get from the arrangement any clear view of the broad development of policy over the period as a whole.

In some degree this difficulty is inherent in the subject-matter. Clear-cut as the "reformers" of 1834 believed their ideas to be, Poor Law policy has been, in fact, always in a state of muddle; and there has been less an orderly development of it than a succession of makeshifts and devices for dealing with particular problems as they arose. The apparent clarity of 1834 really came, as the authors plainly show, rather from a resolute shutting of eyes to many aspects of the problem than from any comprehensive and systematic plan of reform. There were certain things which the "reformers" of 1834 set out firmly to put down. They collected their evidence, and prepared their reports, with these things almost exclusively in view. To a great extent they were successful in accomplishing their immediate aims; but the aspects of the question which they had ignored soon forced themselves upon the attention of those who had to administer the new Act. The "principles of 1834" provided no answer to these new problems; and the Commissioners and, after them, the Poor Law Board and the Local Government

Board went on floundering from expedient to expedient in their largely futile efforts to solve their difficulties.

The thesis which underlies this book is that these difficulties could not be solved within the framework of a Poor Law system. For pauperism is not really an isolable problem, but rather a symptom, or series of symptoms, of a number of social problems which cannot be dealt with partially or as one by an authority concerned solely with destitution. This attitude, which has at long last secured recognition in the new Local Government Act, dominates their treatment and arrangement of their subject-matter. The Poor Law Authorities, they point out, were set throughout the hopeless problem of making provision for a mass of destitution arising from many different causes and needing many different forms of treatment. The Poor Law Authorities were prevented by the nature of their powers and functions from taking any preventive measures. They could deal with destitution only when it had actually arisen, and this meant dealing with it often in a most unscientific way. Moreover, the line of least resistance, and the cheapest way of dealing with destitution, was usually that of lumping as many as possible of the claimants to relief together, and ignoring to a great extent their separate needs.

Thus, it is pointed out that the "principles of 1834" included the abolition of the General Mixed Workhouse and the provision of separate institutions in which different types of paupers could receive appropriate treatment. But this idea was never carried out. The General Mixed Workhouse always tended to recur as the cheapest and easiest way of providing indoor relief. There was, indeed, in the latter years of the system some attempt to differentiate more scientifically; but down to the present day the General Mixed Workhouse has persisted, though almost no one has ever had in theory a good word to say for it.

An exception should perhaps be made to this statement of the advocates of a mainly deterrent Poor Law system. The only logical defence of the General Mixed Workhouse is that it is meant to be empty, because of its success in frightening all possible classes of inmates away. A purely deterrent view of Poor Law policy has, however, never been really possible. *Some* institutional treatment (despite Harriet Martineau's fables) is clearly inevitable: the trouble is that the effect of a mainly deterrent view has gone far to reinforce the other factors making for the survival of the General Mixed Workhouse.

The account of the principles and policy of 1834 and the

succeeding years with which this book opens is exceedingly illuminating. In particular, the authors stress the point that the " reformers " never contemplated the refusal of all outdoor relief, but only at most its refusal to the able-bodied poor. The application of the " workhouse test " and the principle of deterrence to the non-able-bodied was a later development of policy, based either on the ground that it would help to frighten the poor into thriftier habits, or on the hope that it would induce relatives and friends to take the cost of maintaining the non-able-bodied off the rates. Even so, it was never, of course, systematically applied; and the account of the shifts and changes of policy in this matter forms one of the most interesting parts of the book.

After the early years, when the new Poor Law of 1834 had settled down, the narrative becomes inevitably somewhat dry; for mid and late Victorian Poor Law history turns too much on a succession of small administrative adaptations to make lively reading. The book becomes interesting again about the turn of the century, when new attitudes towards the Poor Law began to find clear expression, when Labour representatives began to appear on Boards of Guardians, when the battle between the new " reformers " and the Charity Organisation Society became fast and furious, and when the forces that led up to the new Royal Commission of 1905 began to take shape. The story of the Commission itself is naturally very well told, and is much enlivened by extracts from Mrs. Webb's diaries, in which she relates her encounters and efforts to bring her fellow-inquirers round to a view favourable to complete merging of the Poor Law in the general services of Local and Central Government.

There follow—most interesting of all—chapters dealing with the march of events since the Commission reported in 1909, with the " opening of the floodgates " of able-bodied pauperism in consequence of the post-war depression, and the complete breakdown of the system, both financially and administratively, in face of the new conditions. The phenomenon known as " Poplarism " is fully discussed, and the policy behind it subjected to strong criticism. But equally the futility of all attempts to use the Poor Law as even a supplementary system for the relief of unemployment is exposed, and the problem of the able-bodied made to stand out as both the perennial difficulty of all Poor Law administrators, and the hardest thing to deal with in the redistribution of Poor Law services on functional lines. Naturally, the authors here return to the thesis of the famous Part II

of the Minority Report of 1909, and urge the necessity of a fully organised national service for dealing with the able-bodied unemployed. Their suggestion of some sort of national scheme for the provision of emergency work, tentatively as it is advanced, merits attention at the present time, when this aspect of the problem looks like causing serious embarrassment to the Local Authorities to which the Guardians' duties have been transferred.

On the whole, the authors have handled very well a subject which offered very great difficulties of selection and presentation. They have not succeeded in making a book that it is easy to read through; and they have perhaps at certain points erred on the side of including too much. But the task must have been almost overwhelmingly difficult; and they have done it in a way which will be invaluable to future students. In particular, while their strong opinions have inevitably guided both selection and arrangement, the facts are always, I think, fairly stated, and there has been no suppression of the opposing case. Especially is this fairness evident in the later chapters, in which the authors' attitude rather inclines to a middle view between opposing schools of thought and action. Certainly, these massive volumes deserve to rank with the earlier volumes of the authors' *English Local Government*, and serve even to increase greatly the obligation which all students of that much-neglected study owe to their patience and insight. *English Poor Law History* is not the best of these stupendous contributions to knowledge; but its limitations are rather those of the subject-matter with which it deals than of any fault on the part of its compilers.

G. D. H. COLE

The Next Ten Years in British Social and Economic Policy. By G. D. H. COLE. (Macmillan & Co., Ltd. 1929. Pp. 460. 15*s*.)

IN this volume Mr. Cole has given us the 1929 edition of the fruits of his fertile and rapidly-working mind. The autobiographical introduction explains how the book owes its origin to the inner voice of doubt which sometimes assailed its author in the heyday of his old-style Socialist propaganda. The attempt to answer that doubt for himself and his fellow-Socialists has led Mr. Cole over a long journey, of which the end, as he claims, is a restatement rather than a recantation. In the main Mr. Cole thinks that it is the times, rather than himself, that have changed; a new world demands a new Socialism. Nevertheless, this book may set some of Mr. Cole's readers wondering whether those whose

attitude fifteen years ago more nearly resembled that of the present than the contemporaneous Mr. Cole were as wrong then as he now finds them right.

The book covers a very wide field. Industrial policies, currency policies, family allowances, the control of trade and prices and investment, Imperial economic relations, the reorganisation of local government, and progress in education are among the topics treated in considerable detail. In every sphere Mr. Cole has definite measures to propose, of which the greater part are already foreshadowed in the Labour Party's programme, or widely discussed in political Labour circles. Mr. Cole is indeed frankly sketching a programme for a Labour Government, and it is therefore only fair to regard his book rather as a political tract (in spite of the imposing dress which Messrs. Macmillan have given it) than as a standard work on economics. Judged as such, it sets a standard in political discussion which is only too seldom attained, and must be compared with the Report of the Liberal Industrial Inquiry rather than with the unreal programmes usually served out by politicians to a credulous electorate. Mr. Cole's book may sometimes appeal to optimism; but to credulity never.

From such an ambitious programme the reviewer cannot do more than select those items in which the author has gone outside the scope of commonly accepted Labour policy, or those which reveal some new or particularly interesting social or economic theory. Detailed criticism of all Mr. Cole's proposals is as impossible as it would be profitable. So far as general economic theory is concerned, the orthodox need not fear any violent shocks from this book. The next ten years in British social and economic policy are not to be built on subversive views of value or other profound economic concepts. There is, however, one rather curious doctrine which underlies the author's whole discussion of rationalisation, and is indeed the basis of his case that capitalism cannot permanently stabilise itself. Mr. Cole sees an inherent contradiction between our power to produce and our power to consume the results of production. The view of the rationalisers, that "if only they can bring down the unit costs of production, the problem of distribution will look after itself," is a "blind faith." He sees no hope until "the purchasing power distributed in society" is "measured in accordance with the productive capacity of the community, and not left to depend on the actual production secured by the free play of the forces of supply and demand." Later chapters make it clear that this is

not a plea for some reckless system of monetary inflation. But granted that the monetary system works tolerably well, what else is the problem of making consumption match productive capacity except a problem of cost? Mr. Cole nowhere gets us nearer solving this problem than when he offers the not very helpful suggestion that it would not arise if society began with the decision that all should have useful work, and purchasing power wherewith to enjoy their share of the product of the associated labour of all.

In tackling the unemployment problem Mr. Cole, like the rest of us, is pretty nearly at his wits' ends. To meet the present emergency he would establish a National Labour Corps, voluntarily recruited from the unemployed, whose task would be "to make the country as a whole both a pleasanter place to inhabit, and a more efficient productive concern." But this apparently attractive plan is nowhere worked out in anything approaching practical detail. It is all very well to propose that the National Labour Corps should paint and decorate shabby dwellings, remove slag heaps and "clean up useless débris of every sort." The cleaned-up country remains a beautiful dream unless the problems of the administration and finance of the Corps, and the relation of its work to ordinary industry, are tackled with much greater thoroughness than is anywhere shown in Mr. Cole's exposition of his project. Mr. Cole can, and indeed does, retort that no one has yet produced a better plan than his; but he must be aware that this is a very inadequate defence of an exceedingly complicated experiment.

For the better ordering of the national industry in general we are to rely on the establishment of a National Investment Board which is both to raise public loans and to control private capital issues. The case for this extension of control over the volume and direction of investment is cogently argued. Among other things the Board is to assist the redistribution of our industrial forces from the old staple export trades to that greater variety of small industries with which Mr. Cole thinks the future lies. The interesting chapters which deal with our industrial prospects are apt to fade away into generalities when it comes to a statement of exactly what and where and how large are the new trades which are the hope of the future. But the fault may be as much the world's as the author's.

It is in his attitude towards the democratisation of industry, and his views on socialisation, that Mr. Cole has departed farthest from the doctrines of his earlier books. Though not yet a

Mussolini, he has lost much of the democratic fervour of his Guild Socialist days. The representative principle is dethroned from its unquestioned and universal supremacy and must now be content to criticise the government of experts instead of being itself the governor. The administration of industry, Mr. Cole recognises, is a technical business, and is "therefore not suited for the application of the representative principle in its main operations." But because the "practice of industrialism touches the lives of men" at so many points it cannot be treated as wholly an expert affair. Democratic institutions are needed to express the voice of the ordinary people whose labour is organised and controlled by the expert administrators of industry. But they remain advisory, not executive.

So also has Mr. Cole's whole conception of Socialism undergone a profound change. Socialism is no longer a matter of ownership, as in the old days of the nationalisation of the means of production, distribution and exchange (a formula to which, no doubt, Mr. Cole would never have whole-heartedly subscribed). Socialism now means "the extension of some kind of effective social control over the economic system as a whole." Consequently it has become an exceedingly elastic affair, so much so that "not only is the question whether any given industry should be socialised an open one for the Socialist; the form of socialisation is also entirely open." From the point of view of common-sense and good government this change is wholly advantageous to Socialism. Mr. Cole will, however, have an uphill, if laudable, task in converting the mass of those who call themselves Socialists to this extremely practical view. Moreover, it may be doubted whether a Socialism which has become so indefinite can permanently survive as a distinct "ism" in fundamental opposition to the world as it is. The Socialist has always claimed that the division between himself and the non-Socialist is absolute; it is another system, not an improved model of the present one, that he wants. Mr. Cole comes very near making nonsense of this claim, as he light-heartedly turns what have been Socialist principles into mere questions of expediency. In the long run the effect of his line of argument should be either to destroy the existence of a distinctively Socialist school, or to drive the would-be Socialist back to concern himself rather with questions of ultimate social purpose and social values than with legislative and administrative programmes. Mr. Cole, however, being confined by his subject to policies, not philosophies, naturally does not discuss these issues.

At the end of his survey Mr. Cole makes a very gallant attempt to balance up the effect on both sides of the National Budget of the various changes which he has proposed. He sees no purpose in struggling to redeem the National Debt and hopes to raise the bulk of the money required for new expenditure by diverting the free balance of the Sinking Funds to general purposes, and by increased taxation on inheritance (possibly *à la* Rignano) and a higher surtax. This part of the book is so important that the author might profitably have given time to working out his calculations in greater detail. Still, even a rough balance is better than none. Altogether, then, Mr. Cole has given us an ambitious and an important book. Unhappily the ruthless uniformity of its style (which is suggestive of Committee memoranda) prevents the book from doing itself justice. Mr. Cole would lighten his readers' task, and win their sympathy more freely, if he sometimes permitted them the luxury of an unexpected word or turn of phrase.

BARBARA WOOTTON

Economic Control. By NEIL SKENE SMITH. (London: P. S. King & Sons, Ltd. 1929. Pp. xiv + 306. 15*s.*)

MR. SKENE SMITH has a case to make, but he is anxious to be impartial in the making of it. We no longer believe, he begins, in the "invisible hand," hence we must substitute some control of our own over the economic machinery of the world. According to Dr. Hugh Dalton, who writes an introduction to the book, the question to-day "is not shall the community intervene at all, but precisely how shall the community intervene." The book is divided into two parts: the first discusses methods of economic control in the abstract, while the second describes the experiments made in this field by the Commonwealth and the separate States of Australia.

The object of economic control is to correct the admitted deficiencies of competition while retaining its benefits. There is in our society neither shortage of material resources nor inadequacy in human power to exploit them. But there is maladjustment between means and end which can be corrected by conscious effort. Economic control can be exercised over both production and distribution. The main obstacles to maximum production are natural inertia, ignorance of the best method of utilising our resources, and anti-social preferences where individual gain means social loss. All these can, in Mr. Skene Smith's opinion, be successfully combated by a series of measures, educational,

legislative and administrative, which he describes soberly and in detail. They include such non-controversial schemes as the appointment of Commissions to investigate and publish information on our mineral resources and manufacturing plants and processes; improved technical training and assistance to young persons choosing employment; a connected system of Labour Exchanges; simplified practice, standardisation in production, and co-operation between employer and employed by means of Works Councils. He also recommends compulsory legislation enforcing minimum standards of wage payment, the abolition of wasteful advertising, State assistance to emigration, housing and labour legislation, and State aid to industries which are a national necessity but do not pay the private *entrepreneur*. Monopolies should be firmly controlled, in the last resort by State competition in industry.

With regard to control over distribution, Mr. Skene Smith is exceedingly cautious. As a disciple of Dr. Dalton he cannot but deplore the existing inequality of incomes and wish to redress the balance by taxation. But he qualifies his disapproval when the inequality has a good effect on the national income; he is anxious that everyone should be paid according to the economic social worth of his efforts, and this makes for inequality. To the above desideratum—payment according to economic social worth—he returns again and again, but admits that we have not yet discovered any method of securing it beyond payment by results, which is not free from objection and often misses the mark.

The second part of the book begins with a description of Australian experiments in public ownership of industries, such as coal-mining, water-power production, irrigation schemes, the grain elevators of New South Wales, the various State railways, the wharves and meat abattoirs of Sydney and Melbourne, and finally the Commonwealth Government Shipping Lines. Australian economists claim that the State-owned industries have developed in a scientific manner and with greater publicity than would have been possible for private enterprise, but admit that the State treatment of workers does not encourage maximum efficiency and allows slackness that would not be tolerated in a purely commercial concern. Mr. Skene Smith maintains that State enterprises have not received fair treatment from critics, that their losses have been exaggerated and their benefits minimised. In his opinion they have been advantageous to the consumer and have performed public services compensating for the deficit in the accounts.

The most interesting example of public control, apart from ownership, is the sugar industry. The net result of Government regulation to-day is that the Australian pays 1*d.* more per pound of sugar than the import price. On the other hand, the industry, which could not exist without such protection, maintains some 100,000 persons who create a powerful demand for Australian products. Moreover, there are excellent prospects for the bye-products, which are not yet fully exploited.

An interesting chapter devoted to Tariffs and Bounties concludes with the statement that in practice most of the ordinary necessaries of life can be obtained by the poorer members of the population as cheaply as though the tariff did not exist. Another interesting chapter describes Australian experiments in Labour legislation and Arbitration. At present, wages, hours and conditions of labour in most industries are laid down by Arbitration Courts or Wages Boards. We often hear the criticism that all the machinery set up for conciliation and arbitration has failed to prevent strikes. But the title "Compulsory Arbitration" is misleading; the aims of Courts and Boards is the setting up of minimum standards rather than the direct prevention of trade disputes. Moreover, not all strikes are illegal, though a penalty may be imposed for disobedience to an award. On the whole, awards are satisfactorily observed and there is no important body of employers or employed, nor any political party in Australia, that would wish to do away with the existing form of control.

Finally, Mr. Skene Smith argues, certain incontestable facts speak for Australian institutions. The population is increasing faster than that of nearly every other country, and the average Australian produces as much as he did before the War. Although hours of work have fallen steadily, real wages have risen by 7·5 per cent. since 1911, the standard of comfort is higher and three-quarters of the population have Savings Bank accounts. How much of this can be placed to the credit of public control it is impossible to say. At one point Mr. Skene Smith seems to lose courage, for he admits that improvement ought to have been more conspicuous, that a country with such wealth of undeveloped resources ought not to have an unemployment rate of 8·2 per cent. and that helping people tends to make them apathetic. He even quotes the fact, proved by experience, that the capacity of a settler working for himself is four times that of the same man serving as a group member under a foreman. Nevertheless, he concludes, economic control is of the utmost importance to Australia. The book is carefully written, though there is some

unnecessary repetition, and the manner is judicial and restrained throughout. It is published at the very moment when the problems described and illustrated are very much in the public mind, and readers will find it both instructive and interesting.

H. REYNARD

The Problem of Industrial Relations and Other Lectures. By HENRY CLAY, M.A., Professor of Social Economics in the University of Manchester. (London: Macmillan & Co., Ltd. 1929. Pp. 322. 12*s.* net.)

PROFESSOR CLAY has collected together in this volume fourteen essays, based mainly, though sometimes with considerable elaboration, on lectures delivered or papers published in the years 1923 to 1928. Ten of the chapters deal with wage problems, and the last four with "the authoritarian element in distribution" (which also has some reaction on wages), "property and inheritance," "the distribution of capital in England and Wales," and "a word for *laissez-faire*." The wage chapters open with a discussion of "the problem of industrial relations on the eve of the war," which is followed by a historical and critical account of "government control of wages in war-time"—in some respects the most important chapter in the book. Two chapters deal with "the post-war wages problem," and two more are devoted to particular aspects of that problem, namely, "unemployment and wage-rates" and "export trades and unemployment." Three chapters deal with industrial disputes—"the Whitley Reports and the machinery of conciliation," "government intervention in trade disputes," and "the place of arbitration in industrial disputes," and the wages topic is concluded by a chapter on "wages theory and the minimum wage." The republication of a number of unconnected lectures on different phases of the same subject necessarily involves a good deal of repetition, but on the other hand we have the advantage of watching the play of the author's mind around the subject over a period of time, altering or confirming his views as further facts come to light and consideration of them becomes more mature. Repetition, moreover, is necessary to bring home to the reader the importance of the essential elements in the problem.

Only a brief summary of the central theme is here possible. The problem of industrial relations between employers and employed is complex, being "affected by every change in the conditions of industry or the ideals of the workers." Before the war a working system had developed. "The basis of order in

industry was a system of relatively stable wage standards, defined and enforced by trade unions or by custom, to which prices and production accommodated themselves. For every grade and class of worker a fairly well-understood wage standard in each district had to be paid; if the price that the consumer would pay, after meeting other necessary expenses, would cover this and leave a profit, production would be maintained or expand; if not, production would be curtailed and finally given up. Employers' profits took the first shock of depression, and the first gain due to any advance in prices. Continued depression, general or confined to a particular industry, might force wage standards down, prosperity would certainly tend to lift them up; but such movements were gradual, and confined within narrow limits." The method of piecemeal adjustment to changing needs and conditions was, however, becoming inadequate before the war, because its basis was being undermined. The war destroyed it utterly, by revolutionising the whole peace economy and by altering all the relations of classes and industries. The "normal commercial basis of employment was lost." The Government had authoritatively to direct labour to specific ends and to attempt to regulate wages so that they might keep step with the rising cost of living. The chapter on Government control of wages in war-time will well repay very careful study; it displays the efforts of authorities, often inexpert, to solve entirely new problems under circumstances of extreme pressure, involving not mere money loss or gain, but the very existence of the State. This control, Professor Clay concludes, "was rather a policy of *interpreting* than of superseding the play of supply and demand. . . . And in the process it was able to accelerate the advance in the wages of the less organised workers and check the exactions of the better organised; it maintained some uniformity in the rate of advances in different trades, and levelled up district standards to a common national level. It was able to set some limits to the divergence of rates from pre-war standards and did much to damp down the effects of the temporary changes in the supply of and demand for labour."

The war left the country impoverished by the loss of labour-force and capital and by the diversion of labour and capital into uneconomic channels. The world demand for British goods and services was reduced through various causes, thus particularly affecting the export trades. A new orientation of industrial relations was necessary, but the old rules and customs had become ineffective, and the improved organisation and wider

aims of the workers were new factors. We have had to try to get back to stable relations and to a more economic application of our resources. Changes have taken place but in an unco-ordinated form. " Average money earnings have almost certainly risen more than the cost of living, since increase in real wages in the lower-paid classes more than compensates for the decline among the higher-paid classes, and because earnings generally have risen more than rates. The maintenance of real wages has, however, been associated with a high level of unemployment." Professor Pigou has attributed this abnormal unemployment to high wages, but Professor Clay points out that " in very few industries is it clear that a reduction in wages would by itself do much to stimulate employment," and that other costs have risen as well as wages. The depressed trades show high unemployment associated with low wage levels, and the relatively prosperous trades with high wage rates (such as printing, boots and shoes, baking, heavy chemicals) " do not contribute a large proportion to the expenses of the depressed industries." Coal and transport are material elements in costs, but coal prices and wages are below the average, while railway wages have been secured " at the expense of the shareholders rather than the railway users."

" The root of the present disorder would appear to be a mal-distribution of labour brought about by the war. . . . Either the country must carry through a redistribution of its labour force, promoting migration and financing retraining—a policy for which neither the machinery nor apparently the will exists—or it must wait for the slow and painful distribution which is being affected by the curtailment of recruiting in the low-paid and under-employed industries, coupled with the inducement to enter other industries offered to the rising generation by higher wages and better employment." Government can, however, remedy the " serious handicap " imposed on the export industries by insurance contributions and local rates. In the special case of the cotton industry, rationalisation is required. The expanding industries can only offer us temporary relief. British industry has been organised for a century for a world market and cannot change its direction without heavy losses. " Our recovery of prosperity depends on the world's recovery."

This imperfect sketch will indicate the service which Professor Clay has performed in publishing this book. It is unnecessary to enlarge on his clarity, accuracy, and impartiality.

HENRY W. MACROSTY

The Control of Wages. By WALTON HAMILTON and STACY MAY. (The Macmillan Company. Pp. 180. 6*s*. net.)

THE tendency which Professor Walton Hamilton represents in modern economic thought is a double one. First, a tendency to emphasise the influence of alterable social institutions on economic phenomena, as against the stress placed on unalterable "natural" factors and relationships which figured so largely in classical doctrine. Secondly, a tendency to distrust and even abandon the traditional deductive method of economic theory and to rely increasingly on the fruits of an inductive method of approach.

Clearly, an advocate of such claims can hardly find firmer ground to lay his challenge than in the theory of wages; and Professor Hamilton does well to choose it to launch his iconoclastic assault. The growing dissatisfaction with traditional formulations of wage-theory and the increasing complexity of the labour market itself are forcing even the most dogmatic among us to a discreet modesty in face of any actual wage problem. In Professors Hamilton and May's treatment of the subject stress is primarily laid on the "institutional" nature of the problem. There is no methodological discussion of the adequacy of deductive analysis to the purpose in hand. Rather does the second conclusion follow as a purely practical corollary of the first, since the authors' inquiry leads them to the conclusion that the price of labour depends, not on a few simple factors, but on a large number of complex variables, the nature of which and the relationship between which we can only discover by extending the range of inductive research.

Indeed, it seems regrettable that our authors' approach to this latter problem was not more fundamental, and that the limitations of the series of which this volume is a part should preclude the work from having the full value that it might have had. The series is a popular one, designed as an introduction for the general reader to the social problems of the day. To its intention the book in question admirably conforms; but with this intention pursuit of some important analytical aspects of the question is necessarily inconsistent. Popular exposition and original criticism are seldom good bedfellows. And the argument of the book, which deserves a fuller exposition, loses something in cogency and completeness as a result.

The authors start with the postulate that it is desirable to raise wages to as high a level as is practicable. If wages are "determined by natural and unchangeable laws beyond man's control,"

there is little more to be done than to enunciate these "natural laws" and to preach resignation. If, on the other hand, "some, a great many, or all of the conditions upon which wages depend are subject to control," then the central problem of applied economics lies in discovering what these controllable conditions are and how to control them. Clearly the second, rather than the first, of these hypotheses is the correct one, since "the demand for labour is a compound of the volume of industrial equipment, the efficiency of technique, the quality of management, the demand of the public for the products of labour and kindred elements," while "the supply of labour is a matter of the number of labourers, their training, their experience, their abilities, their organisation and similar qualities"; and such factors are evidently "subject to human guidance" in at least some degree. And the various deductive theories of a "normal" wage are singled out and shown to be invalid as refutations of this contention. Several admirably lucid chapters follow in which the various possible ways by which wages could conceivably be raised are examined and their relative importance estimated. These ways consist, first, in an increase in the nominal wage, at the expense of "pecuniary incomes adjacent to the rate of wages," of technical improvements and of changes in the organisation of industry; secondly, in "a reduction in the prices of the goods and services which the labourer buys"; thirdly, in an increase in the worker's "free income" in the shape of insurance facilities and communal services generally. The possibility of increasing wages by "squeezing" other incomes is shown to be limited to the possible acquisition of "rent" elements and to the possibility of devising "substitute ways of getting the functions performed which 'interest' and 'profits' now serve." This latter is an interesting suggestion which is more original than it should be in face of the growing importance of "collective saving" in various forms. But the most promising source of "an ever-expanding surplus from which to take higher wages" lies in improvements in the organisation and technique of the industrial system. In particular, control of the trade cycle might yield a considerable surplus, as might also the abolition of *rentier* claims on industry through redemption by terminable annuities. Finally, it is necessary that labour should be suitably organised to annex these elements of disposable surplus when they arise and prevent them from accruing to other incomes and remaining there by force of convention or customary right.

In summarising their conclusions in a chapter which they entitle "A Theory of Wages" the authors conclude that "no-

where are to be discovered 'the inevitable causes,' 'the natural forces' or the other imponderables that by some mysterious but inevitable 'natural law' hold wages in their vice-like grip." On the contrary, "these factors are 'institutional' and variable, they are each in its degree subject to control." And by very reason of the complexity of these factors "it is only when analysis, the assembling of facts and interpretation have breathed life into the abstractions of this theory, that it becomes an explanation of a particular rate of wages." To this end more inductive research is required, and above all more official publication of data.

It is perhaps ungracious to complain that the authors have not done what they make no explicit pretence of doing. Nevertheless, one cannot avoid a certain disappointment when one's appetite has been whetted more than it has been satisfied; and the very interest of their trenchant advocacy provokes the wish that they had carried their treatment further. As a popular statement of the relevant aspects of the wages-problem the book could hardly be bettered. As a comprehensive survey of the groundwork, pointing the road along which future inquiry should proceed, it is both comprehensive and suggestive. But it is *prolegomena* to a study of the problem rather than the study itself. In particular, we are left a little in the dark as to the precise nature of their criticism of the ordinary theory of distribution, apart from their general dissatisfaction with its results. Professor Hamilton categorically declares that "there is no such thing as a 'normal wage' or a 'natural rate of wages.'" But the two phrases are not necessarily synonymous; and it is not clear whether our authors merely wish to banish the latter, or are making the much more destructive claim that the formulation of any normal rate is impossible because (within the compass of prevailing assumptions, at least) the problem is theoretically indeterminate. If they adopt only the first contention, the authors are merely advancing the not altogether novel claim that the next step must be an extension of inductive research, to enable an arithmetic solution of the equations of wage-theory to be undertaken in any particular instance. But in this case their argument lies in the sphere of applied economics, not of economic theory as such: in the latter sphere they are doing little more than emphasise that in an equation "constants" are "constants." Deductive theory will still remain as a framework for applied economics, indicating limits and certain relevant relationships. This, in fact seems all that they prove in this book or attempt to prove. If, however, they intend to go further and assert that what are usually

treated as " constants " in wage-theory cannot consistently be so treated, and that no available set of equations are really soluble, then their argument is more iconoclastic, and their championing of the inductive method is considerably more significant and uncompromising.

MAURICE DOBB

Cambridge.

Simonde de Sismondi as an Economist. By MAO-LAN TUAN, Ph.D. (Columbia Univ. Press, and P. S. King, Ltd. Pp. 171. 14*s*. net.)

CERTAINLY a good deal of the trouble devoted in doctorate theses to a restatement of economic theories from the past has merely antiquarian interest. Nevertheless, such study, when conducted with an eye to significance, can often have more importance than is fashionable in some quarters to admit. As a means of profiting from the errors of others, or as a demonstration of the logical development of a theory, it can have some small importance of a purely didactic order. In suggesting conceptions which among later writings have been submerged or neglected it can yield a limited fruit. But perhaps its greatest value lies in making explicit the assumptions of writers which are different from our own, and by contrast defining more sharply the assumptions which underlie our own thought.

To this end primary interest lies not in the detailed theories of our ancestors, but rather in their system as a complete whole. Unfortunately Dr. Tuan in his careful and scholarly study of Sismondi seems to have the former rather than the latter as his chief concern. Each section of Sismondi's doctrine is examined in turn, constituting an excellent work of reference for those who desire a convenient synopsis or concordance to Sismondi's writings. But in fitting the pieces to a general pattern the author is less skilful: the generalised picture he gives us falls short of satisfying; he hardly achieves success in enabling us to see the relationship and significance of the school of thought of which Sismondi was typical to the development of economic science as a whole.

It is perfectly true that a characteristic of Sismondi is that he had no logical system. But this very fact that he did not possess a system, and did not aim to, is itself significant and points to what was distinctive in his approach. Marx acutely described Sismondi as the forerunner of "*petit-bourgeois* socialism." Sismondi represented the standpoint of those at the threshold of the industrial revolution who stood apart from the new industrial-

ism, hostile to it, because their accustomed world was undermined, their traditional scale of values violated. Dr. Tuan calls him "the champion of the rural interests"; and as such he viewed society atomistically through the eyes of the small peasant. He was a critic of the new industrial order, but a critic on behalf of the endangered property-rights of peasant and craftsman, a critic who defended the stability and order of the old against the hazards and license of the new. As a champion of the corporation laws of the guilds against *laissez-faire*, of the working peasant against the capitalist landlord and the capitalist farmer, it was natural for him to hold a paternalistic view of the State as a brake on the harshness of competition, as a curb on the ravages of the machine. And in this he clearly foreshadowed, on the one hand, the later *cathedar*-socialists of Germany and the Fabian collectivists in England, and, on the other hand, the mediævalism which was so strong an element in the guild socialist movement of our own day. Nor does Sismondi represent an isolated phenomenon. His ideology seems to find a close parallel in all countries where the uprooting touch of industrialism is being felt—the Narodniki or Populists in Russia in the 'seventies and 'eighties, the Granger movement in America and similar tendencies of thought in India and China to-day.

Dr. Tuan very appropriately draws various parallels between Sismondi and Marx, the latter of whom he considers did the former scant justice. But the comparisons he makes are mostly on points of detail, which, isolated from a general context, miss the essential and significant contrast. Marx did not glorify or defend the past against the new capitalism. He accepted the new industrial system where Sismondi did not: his criticism of it was from the standpoint, not of a class which faded as industrialism developed, but of a class which was itself child of the machine and nurtured by the machine, and was destined ultimately to revolutionise the property-basis of society. Consequently, like the classical economists, Marx was interested in developing a complete logical system, the former because they believed in a "natural order," the latter in order by the very act of interpretation in logical categories to unfold the contradictions from which development and change would proceed. But for Sismondi there was no "natural harmony" in the new industrialism to require explanation. There was no question of rational interpretation of a phenomenon which he could not accept because he could never believe it was not a mistake or an act of anti-Christ. While Marx's criticism, therefore, overlapped that of Sismondi on a

number of points—for instance, the theory of crises, of population, Sismondi's theory of the exploitation of the labourer by the *entrepreneur*—for Marx such individual concepts were woven into a general texture and had a distinctive significance to the extent that his theoretical system as a whole was different. Hence, the "indebtedness" of Marx to Sismondi which Dr. Tuan claims to find seems clearly an exaggeration, based on superficial and incidental rather than on fundamental similarities.

The degree of "inconsistency" which Dr. Tuan points out between Sismondi's theory and practice of methodology is not altogether surprising. Sismondi did not believe in any logical unity in the economic world. He was "convinced that one is falling into serious error in wishing to generalise everything that is related to the social sciences." "Abstraction," he declared, "is always a deception." Hence, he naturally turned to empirical observation, in which one is at liberty at times even to glory in one's inconsistency. Disbelieving that capitalism embodied a "natural order," he was more interested in historical comparison of institutions for which the classical economists had little use. It was sufficient for him to indicate the fact that inventions and change brought unemployment in its train, that competitive production for the uncertainties of a wide market brought gluts and fluctuations. He did not feel the urgent need to demonstrate by the niceties of logical categories how such monstrous exceptions could occur to the natural harmony of a sublime order. At the same time he was not averse to the use of deductive inference where common sense thought it appropriate. In his essential eclecticism Sismondi was formally nearer to Smith than to Ricardo, in his empiricism nearer to Malthus than to anyone else. As a field-worker among economic institutions Sismondi will always hold a place in history; and Dr. Tuan has done a timely service in reminding us of it. As an inventor of theories he has never properly held a place at all. As an acute observer of fact he should command more admiration than has usually been accorded him, but not as an artist of ideas.

Whereas their bias aided the classical economists in building their masterly structure of theory, Sismondi's contrary bias aided him in the observation of significant facts to which the bias of other economists was blind. And Dr. Tuan does well to point out how close to modern thought Sismondi in many particular instances was. His contention that happiness rather than wealth ought to be the pursuit of economic study has a distinctly modern ring. His theory that distress and poverty may encourage an

increase of population rather than comfort and plenty, and that hence unequal distribution of wealth may itself cause that over-supply of labour which maintains the poverty of the poor, is more in line with current notions to-day than with those of his own time. His theory (as Dr. Tuan paraphrases it) that taxation ceases to be an evil " if what it gives in common enjoyment equals what it causes in sacrifice " might have been quoted from a modern text-book; while his advocacy of direct taxation and of progressive taxation was a bold anticipation of the more fashionable doctrines of half a century or a century later. While Sismondi had little use for the futile insubordination of trade unions, he outlined proposals for the limitation of working hours, the prohibition of child and female labour, and social insurance for the wage-earner. His suggestion to accelerate the early resignation of business men by conferring decorations on their retirement should find sympathy in an age grown restive under " pocket directorships "; while his proposal that the State should adopt the function of controlling the birth-rate is bolder than what most neo-Malthusians dare to advance.

But perhaps the most interesting of Sismondi's special doctrines was his theory of industrial crises. That these were the product of industrial capitalism and that they were accentuated by the existence of a developed credit mechanism was his central indictment of the new order. And in the importance which he attached to this phenomenon in an age of general blindness and unconcern he anticipates our modern emphasis. Sismondi, indeed, has the honour of being the forerunner of the modern study of the trade cycle. But here again he was more concerned to indicate the fact of gluts and depressions, and their obvious connection with wider markets, competition and new inventions, than to construct a detailed causal explanation of them. " Though it assumes the name of a theory, its basis is strictly descriptive and practical," as Dr. Tuan observes, " and needs no postulate of any kind to make it work." Over-production was for him a phenomenon, not a logical category; and it is hardly correct to depict him as the father of later conceptions of under-consumption as the adequate causal explanation of trade cycles. Dr. Tuan suggests that " Sismondi thought that raising the wages of the most numerous class of society would help in solving the crisis problem." Maybe; but the conclusion does not necessarily follow from his argument, and one may equally well doubt Dr. Tuan's suggestion as accept it. Had he been pressed for a more precise characterisation of his " general over-production," Sismondi might well have

analysed it (as Malthus did in a passage cited in this book, and as Marx also did later) as "a glut of commodities compared with labour, so as to lower profits and to check for a time further production." And for this, of course, a raising of wages or a diminution of inequality would not necessarily be any cure.

MAURICE DOBB

Cambridge.

The French Franc, 1914–1928. By E. L. DULLES; with an introduction by ALLYN A. YOUNG. (Macmillan. Pp. xxxvi + 570. 27*s.*)

THIS volume is as yet the most complete English account of the depreciation and final stabilisation of the French franc. Its aim, however, is not merely to provide an historical narrative. The late Professor Young in his introduction aptly remarks that "it is no longer profitable to inquire into the working of a depreciated currency with no other end in view than that of finding a fresh confirmation of established monetary principles." Dr. Dulles combines with her narrative a critique of these principles. In particular she seeks to emphasise the various psychological influences which inevitably become of special significance when a currency is subject to continuous depreciation. To that emphasis no objection is likely to be raised except that in calling attention to what may perhaps have been an under-rated factor, care should be taken that a proper balance is still preserved. It is not quite clear that Dr. Dulles has succeeded in striking this balance. It should be possible to state the practical difficulties of French Finance Ministers without conveying the impression that they were faced with an impossible task. In a sense that is to deny the problem. No doubt ex-Ministers will be grateful for any apology that may be offered, but most economists will remain unconvinced. It is not the business of the statesman to harbour illusions which leave his budgets still unbalanced. No matter how dramatic the gesture, or how well the scenes are staged which are to restore confidence to the holders of francs, there remains an economic and financial problem to be solved.

Dr. Dulles is critical of the value of a quantity theory of money which depends so much upon velocity of circulation. "It is obviously too mechanical a theory to express the shifting complex of economic and psychological relationships which governed short-run value in France. It became apparent that the value of money must be influenced first through moral

channels, and then, in the second instance, through economic channels" (p. 20). In the same way theories which are based upon purchasing power parities are equally deficient. They are too complex for political action and too ambiguous for the practical financier. Statistical difficulties apart, the conception of a purchasing power parity is said to have only a limited validity, chiefly because it assumes that there is "a causal influence running quickly from prices to exchange rates," whereas in France "causality ran distinctly from exchange rates to prices" (p. 25). Surely the problem of explaining the disparities between actual exchange rates and true parities has not been ignored by writers on the subject. And if the line of causality was from exchange rates to prices, does that not give point to the argument that currency stabilisation might have been accomplished prior to budget equilibrium by adequate exchange intervention out of available resources? Dr. Dulles, after somewhat inadequate discussion of that argument, concludes that the only road to stability was by first securing budget equilibrium (p. 388). In an earlier chapter the statement is found: "Experience has demonstrated that it is possible for the Government to exert a considerable influence on foreign exchange rates, while price and credit control are difficult" (p. 348). But the important point is whether such a "considerable influence" could not have been made a deciding factor in such a way as to have brought about stabilisation at an earlier date. Those who advocated exchange intervention could not be accused of ignoring the budget problem. The question was rather one of mechanism. Dr. Dulles contents herself by submitting three main reasons why in the case of France budget equilibrium "*had to* precede stabilisation" (reviewer's italics): (1) Taxation was fairly evenly balanced as between direct and indirect sources of revenue; (2) much of the State expenditure was fixed irrespective of the course of prices; and (3) speculators had come to look to the budget as a main index of the financial condition of the country. In practice, of course, it was much easier for them to look to the regular statements of the Bank of France and assume their accuracy.

The volume, however, is not without merit. Among other things there is a clear account and criticism of the theories of the *plafond unique* and the *circuit fermé*. In some respects Dr. Dulles is at her best in treating of the French public finances. She is also at pains to provide the more important statistical data. There is a statistical appendix extending to fully eighty pages, and many additional tables are inserted in the text. But in

view of some of the author's earlier remarks one rather wonders whether that statistical material can be put to much use.

D. T. JACK

The University,
St. Andrews.

England and the New Gold Standard, 1919–1926. By WILLIAM A. BROWN. (King. 1929. Pp. xvi + 322. 15*s.*)

THIS is a useful book. In his Preface the author remarks that "the Western world has not returned to the habits of thought and the degree of contentment with the results of individual enterprise which were characteristic of it before the great upheaval. In currency matters, also, the urgency of the problems of reconstruction brought into being a degree of international co-operation not previously known." The theme of the book centres on the problem of the instability in the value of gold. Under the changed conditions which now prevail we have a "new gold standard" the full possibilities of which have not yet been realised. There is, however, no mere return to the "automatic" functioning which was supposed to exist before the war. Mr. Brown sets out to describe "the historical origins of the changes which the gold standard has undergone since 1914; . . . to show the relationship of the British Empire as a whole and of the United States, to the problem of the return to gold, and . . . to find in the rich experience of these years some new illumination as to the nature and principles of the gold standard."

On the whole Mr. Brown succeeds in presenting a fresh discussion of a familiar sequence of events, largely through the attention which he gives to the problem as it might be viewed in the gold market. Among other things, he examines the means taken to prevent a serious reduction in South African gold production, the attempt to restrict the Indian demand for gold, and the use to which gold was put in the United States. There is a useful examination of the position of South African gold-mining from 1920, which shows the influence exerted by the South African price level, the London-Johannesburg exchange rate, and the under- or over-valuation of sterling by the sterling-dollar exchange. The first of these affected mining costs in South Africa; the second affected proceeds of sales of gold in London when realised in the Transvaal; and the third affected the "degree of accuracy with which the London market price of gold bullion reflected changes in the world value of gold" (p. 76).

On the questions raised by Great Britain's return to the gold

standard in 1925 the author is cautious. The Chapter on "The Conflict of Opinion and Economic interest," which records the diverse opinions of Mr. Keynes, Mr. Brailsford, Mr. Cole, Mr. Wheatley, Lord Melchett, Mr. Kiddy, the Federation of British Industries, etc. is somewhat disappointing. The author, of course, may claim that it was no part of his argument to consider the wisdom of the actual timing of the return. And ample compensation for this is afforded in a later Chapter on "The Technique of the New Gold Standard." The analysis here is based upon a threefold classification of gold shipments under the new conditions: (1) The gold movements resulting from the ordinary working of the gold standard; (2) gold movements to the East and for the trade; and (3) "shipments of monetary gold whether physically moved or 'earmarked,' made by central banks in the execution of monetary policy irrespective of exchange rates" (p. 267). These do not represent new types of gold movement; the new significance lies in the increasing importance of the third type. Gold movements of the third type "indicate no disequilibrium of prices between different countries. They tell nothing of the relative value of gold in different parts of the world. They are often capital transactions made with a view, not to the correction of deviations in the foreign exchange, but to the provision of, or increase in, the limiting element in the currency systems of different countries. . . . They provide one of the means by which the value of gold may be regulated. For by deliberately moving gold from one bank reserve to another through purchase and sale regardless of exchange profit, a distribution of the metal so as to prevent undue deflation from scarcity or inflation from over-abundance becomes conceivable without abandonment of existing ideas about reserve ratios" (p. 275). Gold movements of this type may be increased as a result of the post-war distribution of monetary gold stocks, but if there is a danger of gold inflation or deflation, can that really be prevented without some change in "existing ideas about reserve ratios"?

The problem as regards the future depends upon the sufficiency of new gold production in relation to the world demand for the metal for all purposes. Mr. Brown accepts uncritically the assumption of Cassel that a gold production equal to 3 per cent. of the total stock will continue to be necessary to maintain stable prices. It is unfortunate that he does not examine this assumption in detail, but, having made it, he is forced to conclude that the immediate danger is one of a rise in the value of the metal.

In that connection the question also arises as to how far a redistribution of the United States' gold holding might serve to check a rise in the world value of gold. (In the marginal heading on p. 306, "decline" should read "rise.") In 1924, a United States Government Report stated: "While the United States has more than half the total monetary gold in the world . . . a return to the normal functioning of the gold standard throughout the world will make necessary a redistribution of its disproportionately large gold reserves." And Dr. Sprague told the Royal Commission on Indian Currency and Finance that "it certainly renders the world a little less dependent upon the vagaries of gold production that there is this large store of gold in the United States available in one way or another to support prices throughout the world at something like present levels." There are, of course, those who doubt whether the amount of surplus gold which the United States would *allow* to be redistributed would have much real compensating effect unless the various central banks agreed to rationalise their gold holdings.

D. T. JACK

The University,
St. Andrews.

The Money Illusion. By PROFESSOR IRVING FISHER. (London: George Allen and Unwin, Ltd. 1929. Pp. xvi + 245. 7*s.* 6*d.*)

IN *The Money Illusion* Professor Irving Fisher resumes the task of advocating stable money with his accustomed cogency. The "illusion" is the common man's tacit assumption that money is in fact a stable measuring rod, together with the large class of false propositions which may be deduced from that assumption. Professor Fisher seeks by the skilful use of example and analogy to dispel that illusion from the mind of the general reader.

Having treated of first principles, Professor Fisher makes some comments on the present situation. Of recent American prosperity he writes that "the cause which is probably the most important of all, that is, stable money since 1921—approximately stable—has all but been overlooked." He praises the work of the Federal Reserve Banks, but adds that "such stabilisation as we have enjoyed during the last few years has been the result of an exceptional opportunity." Remedies for instability he divides into two classes—expedients which put off the solution, and solutions. The former are (i) the widespread and systematic adjustment of regulations prescribing the reserve ratios of central

banks, and (ii) international clearing. He gives three possible solutions: Professor Lehfeldt's plan for controlling production, his own compensated dollar and the abandonment of gold. The dichotomy does not seem happy. Reserve regulation widely undertaken with international agreement might prove a solution, not a mere palliative, unless conditions of gold production became radically different, and in that case the Lehfeldt and Fisher schemes would also prove unavailing. The amount of international agreement implied by the operation of either of those schemes would be sufficient to secure fine adjustment in reserve regulations, and that adjustment alone should give stability. Public opinion, however, must needs become much better educated than it is at present before it would endorse the annual or quinquennial reduction by one point in the legal gold cover requirement of its central bank. Yet that is the kind of action implied. Consequently, Professor Fisher's attempt to educate the public in this book is of very great value.

R. F. HARROD

Christ Church,
Oxford.

A Study of Interest Rates. By KARIN KOCK. No. 1, Stockholm Economic Studies. (London: P. S. King. 1929. Pp. 252. 12*s*. 6*d*.)

THE publication of this book is an event of some importance, as it is No. 1 of a series of studies to be produced by writers connected with the Department of Economics at Stockholm University. Miss Kock has produced a very competent piece of work, and has set a high standard for the series. If future studies in it are to be as useful as this first one promises to be, we hope that the publisher will see to it that a more durable binding is provided. The design of the cover is very attractive, but the material has unfortunately been so skimped that the front cover already threatens to come away from the back of the book before it has found, what it most certainly deserves, a permanent place upon our shelves. One or two other details of this sort should be mentioned. There is a misprint on p. 177, where the pegged London Commercial Bill rate for 1927 is given as $3\frac{5}{16}$% instead of $4\frac{5}{16}$%. There is a sentence on p. 159 which appears to be mistranslated "the area (to be sown) is not as a rule reduced, only the kind of produce"; and on p. 59 a table showing the percentage of total loans made at different rates of interest is worked out to the nearest ten-thousandth part of 1%.

These small blemishes are worth attention because the form, the table of contents, bibliographies and charts are all that they ought to be in specialised studies of this character, but the absence of an index is not properly compensated by the analytical table of contents.

Miss Kock tells us in her Foreword that "the relations between different kinds of interest rates as they appear in the market first attracted her attention" when she was working in the intelligence department of a Swedish bank, and that she was enabled by travelling fellowships to make a study of the problem in London and elsewhere, and to discuss it with economists and bankers. She represents an increasing number of writers who have carried into the business world a training in scientific economics, and who are able in consequence to make available for the theoretical economist a useful survey of practical details which are not usually accessible to him. Among studies of this class her book will take a high place, and it ought to be invaluable to any student of interest rate problems because of the precise and lucid way in which important practical problems of borrowing and lending are dealt with.

Particularly interesting and suggestive are the chapters which show the influence which the differing organisations of the money markets in London, New York, and Stockholm have upon the availability of credits, and hence upon the relationship between the prices paid for loans of different lengths of time. The analysis of these markets is certainly the strongest part of the work, and the appendices describing briefly their structure are useful, and well conceived and carried out. Within these limits the book certainly achieves its object, but it is a different object from that which is set out in the Foreword. Far wider theoretical considerations would have been included if the Foreword were to have been justified, and it would be possible to criticise the interest theory upon which the book has been conceived. But Miss Kock knows her materials and her money markets; and this book, written from a fresh point of view, provides one of the many needed bridges between Money Market Primers and books on the theory of Money and Banking, and it should be useful to those who are interested in the organisation of money markets as well as those who are studying the theory of interest and capitalisation.

N. F. HALL

University College, London.

The Mystery of the Trade Depression. By FREDERIC E. HOLSINGER. (London: P. S. King & Son, Ltd. 1929. Pp. xxxix + 360. 7*s.* 6*d.*)

MR. HOLSINGER'S aim is to make every man and every woman an economist, though for the orthodox economist he has nothing but contempt. "The capitalist system is reeking with intellectual dishonesty," and economists are either too short-sighted or too prejudiced to understand what, by the simplest process of reasoning, Mr. Holsinger has discovered. The capitalist is the villain of the piece, and his crime lies in saving, and in exporting capital goods, instead of making and selling goods of rapid consumption to his fellow-countrymen. The foreign trade of Great Britain, Mr. Holsinger reminds us, annually shows a large excess of exports over imports; what return does she get for the virtue that goes out of her? None, since the excess of exports can only mean that capital is exported on credit. With the utmost generosity Great Britain forces loans on her Colonies and Dependencies, and even on foreign countries, while the masses of the people are thereby robbed of the goods they sorely need. Some of the foreign loans turn out total losses, as, for example, when Russia and South American Republics repudiated their obligations. Where the capital is not lost, goods should return to the creditor country in payment of interest, but as the debtor countries go on borrowing and some of them even raise fresh loans to pay the interest on their previous debts, no return of any kind ever accrues to the lender. Only during the World War did Great Britain receive interest in the shape of goods from her debtors.

Since we are not after all a nation of lunatics, to what is this mania for exporting capital goods on credit to be ascribed? Obviously to the divergence between individual and national interests. The manufacturer must produce to keep his machinery running and he must sell. Since he refuses to pay adequate wages, his employees can neither afford to buy home-made goods nor create an effective demand for the imports that might have come in in exchange for the exports. So the manufacturer sells abroad and is paid with the money which his foreign customer has borrowed on the London market. And the worker goes empty. It is true that increased production means increased employment, but since *ex hypothesi* the additional goods go out of the country, a large number of employees are left to compete for the same quantity of goods, and the sole result is a rise of price level and diminished purchasing power. The view that increased pro-

duction benefits the worker is therefore a mere delusion. Nor can we expect any improvement under the existing order, since the ideal of the capitalist, backed up by the economist, is the expansion of production, which, to be successful, requires a fixed money wage and a rising price level: in short, the "secret mulcting" and "wholesale robbery of the working classes."

The argument, despite endless repetitions and absurd flourishes and extravagances, is developed logically enough from its own peculiar assumptions, and is enlivened by abuse of every economist of note. The reader who has had the patience to go through with it, hopes to find at last some constructive proposal for the regeneration of society, if not the ushering in of the millennium. But the end is crude and meagre. A share for the workers in the ownership of industry is dismissed as a mirage. The workpeople can never acquire rights in existing undertakings because, apparently, the capitalist will not let them purchase shares. Despite the daily Stock Exchange quotations, Mr. Holsinger is convinced that the small investor cannot buy the stock of Public Utility Companies, or of commercial or industrial concerns. He is forced, especially in America, to purchase foreign securities of doubtful value, since Mr. Ford will never consent to part with a single share in his great Works. The fame of the recent issues has evidently not reached Mr. Holsinger, and Mr. Ford is a great worry to him, though on balance even Mr. Ford can be used as an argument against capitalism.

Nor will taxation, to which Socialists look so hopefully as a means of securing a more equitable distribution of wealth, serve Mr. Holsinger's purpose. For the capitalist always contrives to hand on the burden to the consumer. The Capital Levy is a "financial chimæra" and an "economic delusion." The only possible expedient is confiscation of all income and property above a given margin, but this margin is fixed quite astonishingly high: at £10,000 for income, £200,000 for income-bearing property and £20,000 for unproductive property. Only 9,353 persons will be affected by the confiscation of income, and the rest can therefore breathe again. To deal with so small a number will be comparatively easy and the whole thing can be done by a transfer of shares, a mere paper transaction, which will involve the minimum of dislocation. No further heroic measures will be needed, for this redistribution of resources will prevent excessive saving, do away with "frozen income," and allow everything to settle comfortably in its place. In short, it will bring about that ideal state in which everyone will have, not according to his need,

which is the Communist fallacy, nor according to his labour, the Socialist prejudice, but according to his " capacity to consume " —whatever that may mean. The reader who is not wholly satisfied can look forward to more light, for Mr. Holsinger promises us at least four further volumes on similar lines, to solve any outstanding problems.

H. REYNARD

The Co-operative Pattern in Cotton. By R. H. MONTGOMERY. (Macmillan. Pp. 335. 10*s*. 6*d*.)

IN this realistic study of the dynamics of marketing Dr. Montgomery much advances the knowledge of cotton growing and selling in the U.S.A., and, by making a detailed examination of the events which preceded and followed the setting up of the Texas Farm Bureau Cotton Association for the co-operative marketing of cotton in that State, crystallises the issues and problems which would be raised by any extension of co-operation designed to control production and manipulate prices. His general finding, based upon patient investigation and intimate association with the Texas experiment, is that the existing farmers' co-operative selling organisations, usually limited to operation within one State, can justify themselves by the economics of large-scale enterprise which they bring in collection, warehousing, financing, ginning and direct selling, but that the need for stabilised prices and rational control of output is so urgent that only a scheme covering the whole cotton belt can effectively deal with the farmers' difficulties.

The position of the cotton grower in the U.S.A. presents a social problem of some urgency and a theoretical question of great interest. On the human side there is the picture which the author presents of " a whole miserable panorama of unpainted shacks, rain-gullied fields, straggling fences, rattle-trap Fords, dirt, poverty, disease, drudgery and monotony that stretches for a thousand miles across the cotton belt." On the analytical side is the speculation of how far, and by what reorganisation, it will be possible to ensure a steady income for growers who produce a crop which is notoriously liable to unforeseeable fluctuations in demand and supply, and the inelasticity in the demand for which leads to violent fluctuations in the aggregate income of the farming community. The obstacles which lie in the way of improvement in the conditions of those who are so little inclined to help themselves appear almost insuperable, and the author does not belittle them. The cotton-growers are, on the whole, an

impoverished and ignorant class working by traditional methods on small-scale farms. In many cases they are bound hand and foot to merchants or local banks for the financing of their crop; they know little of market conditions and have shown no natural inclination to co-operative effort such as that found in Denmark. In his first chapter Mr. Montgomery, using reports of the Department of Agriculture, shows that the local market for cotton lacks all the essentials of the perfect market. The same kind of cotton is sold at the same time in the same locality at different prices, and no adequate difference in price is found between low quality and high quality grades. Chapters two and three give a racy description of the clash between the immovable object of agricultural tradition and conservatism and the irresistible force of those methods of propaganda and crude public appeal in which the American business man excels. It is described how the original Sapiro plan for a unified co-operative organisation to control the output of the whole cotton belt gradually dwindled in the face of opposition and practical difficulties to a limited scheme covering only about 5 per cent. of the Texas crop.

The faithful account which is given of the events in Texas throws great light upon many of the queries that it is natural to address to this new development in producers' associations for marketing control:—How is the financing of the annual crop arranged? What manner of control do the members exercise over the board of direction? What degree of stability can such an association hope for? On the last of these questions Mr. Montgomery is particularly illuminating, for he shows that, although the Association binds its members by written contract and holds them by the representation which the individual member has in appointing the board of directors, yet it is forced to spend each year a larger proportion (in 1927 about one-third) of its overhead charges in "field service," and it is seeking to identify its members more and more closely with it by extending its activities into ginning, seed provision and the financing of standing crops.

It is one thing, however, to assert upon the strength of a careful inquiry that local associations for marketing can improve the financial standing of growers—either through the net social gain of large-scale handling or through a redistribution to the advantage of the grower of the total price obtained for cotton arising out of his increase in marketing strength. It is quite another to suggest that a unified plan for the control of the output and price of the whole of the cotton crop would be successful,

and Mr. Montgomery would probably be the first to admit that the recommendations which he puts forward in the final section of this volume are but the first words in an unexplored problem. He seems, indeed, to belittle the gigantic difficulties which would face such a scheme. At some of them he hints, as, for example, how it will be possible to maintain even a semblance of democratic control in a marketing organisation covering such a tremendous area as the cotton belt and dealing with so immense a crop. Many others he appears to neglect under what appears to the present writer to be the mistaken assumption that the problems which would face a unified co-operative marketing scheme " are not new types of problems," but similar to those faced by industry in general, such as " the packing, steel and petroleum industries." The establishment of a democratically organised plan for the control of the cotton supply appears to differ basically from the creation of an industrial combine. The former involves the control and absorption of many more separate units, and has a less certain control over annual supply than the latter. There are obvious difficulties in imposing a policy of restriction of output upon thousands of growers which make it debatable whether it could ever be carried through, and the plan which is mentioned (p. 269) as adopted for milk supplies would hardly suit cotton marketing processes. The fundamental distinction, however, is that whereas the normal industrial combine is autocratically controlled, the marketing scheme for cotton would be a democratically guided venture. The directors of a trust may have a sense of public policy; even if they lack this they can usually be expected to understand the reactions which follow upon attempts at monopolistic extortion. But is it to be expected, either on general grounds or from past experience, that the normal cotton grower whose views will ultimately control policy will have anything in his mind save the fixing of as high an immediate price as possible? And is it socially desirable that the ultimate control of so important a staple product should be left to a body of growers who admittedly are ignorant, lacking in vision and entirely misled upon the causes of their present condition?

It is nevertheless clear that the stage is set in the U.S.A. for some great experiments in co-operative marketing. The value of the present volume leads one to hope that Mr. Montgomery will regard this merely as an interim report and will give us later an equally able account of those experiments.

John Jewkes

University of Manchester.

The Economic Impact of America. By the HON. GEORGE PEEL, author of *The Financial Crisis of France*, etc. (London: Macmillan. 1928. Pp. 331. 12*s.* 6*d.* net.)

IT is the impact of the United States on Great Britain and her prosperity that concerns Mr. Peel. His book is a brief and competent survey of the economic relations between the two countries since their political relation was broken, together with four chapters forecasting the future. In this sphere, where historians fear to tread, Mr. Peel is an optimist, but his optimism is base on solid ground; and to an American reviewer, somewhat disheartened by the complaining atmosphere of post-war England, his robust note rings true to British character. " The fundamental factor which has secured, and will always secure in the future, the economic fortune of Great Britain is America herself. The discovery and development of the American continent made the economic destiny of England." This is Mr. Peel's reasoned conclusion. Yet, " America will do us in " is a cry three centuries old. In the seventeenth century the colonies were declared to be " draining " England of her population. In the eighteenth century it was assumed that America would be a menace to Great Britain unless under her political tutelage; but the independent States proved better customers than the thirteen colonies. British capital was essential to the economic development of America; and the repudiated state debts were lost in the stream of profits and dividends that flowed back to England. American imports from Great Britain steadily increased, despite rising tariffs. The record year, in fact, came after the Fordney-McCumber Bill went into effect. In the present situation Mr. Peel sees very little to discourage the outlook for the future. New York has established a money market, but has not replaced London as the money market of the world, and is not likely to do so. Indeed, New York is likely to lose ground, if agrarian jealousy tinkers with the Federal Reserve system, which at least is inferior to the British financial system. The peak of serious competition from the American merchant marine has probably passed. British manufacturers may compete successfully with Americans even in the American market if, instead of emulating mass production, they concentrate on those " quality products " which gave the British goods their reputation in the past, and for which the demand increases with prosperity and civilisation. Mr. Peel admits that the war debts are a heavy handicap to England, but predicts that the United States will be brought by the force of events to recon-

sider that problem; and he reminds his readers of the immense services that America has already performed for the rehabilitation of Europe, in feeding the hungry with food, in providing capital for industry, and in helping the Bank of England to bring the pound to par. Another factor in our commercial relations that he does not mention is the immense American importation of raw materials from India, for which the United States sends a very trifling return in goods; this "favourable balance" of Mother India must go a considerable distance toward making her Britain's best customer.

Altogether Mr. Peel's book is an excellent one, opening up to the general public a mass of material from the blue-books, and interpreting it with intelligence and humour. His short financial history of the United States is probably the best that has appeared in either country, and his delightful sketches of American statesmen provide a useful relief from facts and statistics. He closes on a note of sturdy optimism: "We must conclude that the place of Great Britain in world economics is not less, but more important, than formerly, and that her future will be even greater than her past."

S. E. Morison

An Australian looks at America. Are Wages really higher? By Hugh Grant Adam, Associate Editor, *The Herald*, Melbourne. (London: George Allen and Unwin, Ltd. Pp. 118. 4*s*. 6*d*.)

Mass production is the bogy of this shrewd and observing Australian editor with Labour sympathies. Entering America at the Golden Gate instead of the Narrows, he received his earliest impressions from the open-shop manufacturing towns of the Far West; and his impressions of American liberty and prosperity grew steadily worse as he moved eastward. After inspecting the mass-production factories of Chicago and Detroit, where ninety per cent. of the labour is classed as unskilled, Mr. Adam concludes that Australian labour is much better off respecting liberty and real wages than American labour in the non-unionised plants. He is amazed at the timidity and lack of ambition of the mass-production workers—such as those in the Ford factory—and has shrewdly guessed that an important factor in it is the instalment system of buying, so that unemployment means the loss of the worker's car, gramophone, and all his gadgets that make life worth living. Mr. Adam's inspection, though far from superficial, was necessarily partial. He would probably have had a different story to relate had he begun with the garment trades in New York, where the union not only assumes factory discipline and influences

factory policy, but even brings unenterprising employers to book when their conservatism threatens to hurt the business. But he puts his finger on one factor in American prosperity often overlooked in England: the high competence of industrial management. Business administration, as management is generally called in America, has become a profession for which Harvard and other leading universities have special training schools. This process of professionalising management has brought about an almost complete divorce between management and ownership; so that it is now the professional manager who tells the President of the Board of Directors "where he gets off." No American manager would make the complaint so often heard in Australia by Mr. Adam, that his workmen were lazy, selfish and inefficient, for it would be a confession of his own incompetence!

Mr. Adam regards the mass-production workers in America as little better than slaves. Perhaps he is right; but the worst feature of this neo-slavery is that the slaves like it. A vast number of them are recruited from the farms, and others from the artisan class. The fact is that the average man in America—and I suspect that the same is true of other English-speaking countries—does not want an individual job that requires thought. He much prefers to be a cog in the "chain gang" performing with endless repetition some simple task, provided that the pay is sufficient to meet his ideas of a proper living. He does not want responsibility; variety he gets at the movies, or in other recreation. Mr. Adam's own example: the Scot machinist whom he interviewed, and who preferred £6 a week for a simple repetitive task in Chicago, to £4 a week for being a handy man in Glasgow—is the human key to the system.

Mr. Adam is astonished that America has not investigated the effect of this deadly, monotonous, repetitive labour on the mental and physical health of the worker. His surprise seems naïve: there must always be some group or interest to start such an investigation. None of those directly interested want it; and the system has not been long enough in operation to produce human wreckage, and therefore interest the philanthropists.

S. E. Morison

Harvard University.

Representative Industries in the United States. By H. T. Warshow. (Allen and Unwin. Pp. 702. 18*s*.)

This book is mainly concerned with technical developments in certain great industries—aluminium, chemicals, automobiles,

the metal industries, oil, rubber—as well as in construction and water-power. There is also a concise survey of methods of procedure in American banking. The economist can, however, derive from it much incidental information regarding commodity markets, the influences acting on localisation, the relation of banking to special industries, the preparatory costs of establishing a market for new commodities, the control of output, and the representation of labour in the policies of great organisations. All the contributors write with the authority of specialists, and the volume is a valuable handbook for reference.

D. H. MACGREGOR

Les Lois des Rendements Non Proportionnels. By M. BYÉ. (Paris: Recueil Sirey. 1928. Pp. 553.)

THIS is an encyclopædic volume for which anyone interested in the subject with which it deals may well be grateful. To bring together the views of a multitude of writers of many nationalities —the bibliography contains the titles of some 250 books and articles—and to present these views in systematic relationship is the meritorious task which M. Byé has performed. The volume is divided into three parts. The first part is concerned with the historical development of the conception of a law of decreasing returns in agriculture and with the treatment of the conception in the writings of the classical economists; the second with the modern conceptions of the laws of non-proportional returns and with some problems associated with them; the third with the criticism of these laws and with the requisite conditions of their objective study.

Perhaps no one who reads the volume will find it altogether satisfactory. Those who have given their allegiance to one or other of the interpretations of increasing and decreasing returns will probably complain that the interpretations they favour have not been presented as forcibly as they might have been, while those who are not thus committed may consider that, in some instances, the discussion of points of small importance is so long-drawn-out as to become tedious. Generally the method pursued by M. Byé is to give extracts from numerous writers, some of which seem to add little to the discussion.

Probably, by many readers, the first part of the volume on the law of decreasing returns in agriculture will be found the most interesting. One of the best chapters is that in which the views of the critics of this law, as M. Byé (assisted by Dr. Cannan) finds

it expressed in the writings of the English classicists, are brought together, and in which the distinction between the static and the dynamic conceptions begins definitely to emerge. The question left in one's mind after reading this part of the volume is whether M. Byé has treated the classical writers with adequate justice. Is it not possible to find in Senior, in Mill, or even in Ricardo, passages which indicate that they were not so purblind to possible developments which would alter the outlook for the future as they are commonly supposed to have been? A treatment of the classicists in which more emphasis is laid upon their tentative strivings after a wider generalisation than the law of decreasing returns, and in which the word caution is sometimes substituted for pessimism, would not be altogether inappropriate.

When M. Byé proceeds to the second part of his volume he is prepared to abandon the law of decreasing returns as understood in the classical tradition. Evidently, to him, the correct setting of the laws of production is to be found in the law of proportion of factors. The laws of increasing and decreasing returns find their bases on this common ground; the law of proportion of factors is not necessarily more closely related to agriculture than to industry in general. In thus departing from the classical tradition M. Byé will presumably earn commendation and criticism. Those who see in the die and medal illustration a primary law of returns will no doubt commend, while those who see in it only an accidental occurrence, or an indication of rank inefficiency in organisation, or, at best, only a secondary law, will criticise. Whatever may have been the deficiencies of the classical economists, they did not assume that the industrial organisers of their day were so unintelligent as to purchase a steam hammer to crack one nut when a toy hammer would serve the purpose. What they did assume, as those who follow in their tradition must assume, was that to meet an enlarged demand the required additional factors of production would be so combined, distributed, and applied, as to yield the largest return obtainable for the outlay at the time. That they generally believed that the result would be a decreased return was because of their doubt, especially when land was an important factor in the situation, whether the combination of factors required to meet the larger demand would be as good as the combination required to meet the smaller demand. Evidently in this combination a proportion is implied and, in this sense, it is possible to recognise that there is a definite relation between a proportion of factors and the operation of increasing and decreasing returns.

How far we are from the stage when the present-day theoretical conceptions of increasing and decreasing returns will become practical is well brought out in the third part of M. Byé's volume. Here, as elsewhere in the volume, the views of Professor Pigou occupy a large place, while, necessarily, the controversy of recent years, well known to the readers of this JOURNAL, is summarised. On the questions at issue in the controversy, especially on those in which Professors Pigou, Sraffa, and the lamented Allyn Young are involved, M. Byé is not very penetrating. Apparently he is favourably impressed by Professor Sraffa's contribution, notwithstanding the consideration that, if its reasoning were accepted, not only the conditions under which the laws of returns operate, as generally conceived by theoretical economists, but also the conditions which prevail in their own productive establishments, as generally conceived by practical industrialists, would have to undergo serious modification. On the other hand, the significance of Allyn Young's contribution seems hardly to be given due weight.

Frankly it must be admitted that few readers of this volume will feel satisfied with the progress which has been made in the study of the conceptions of increasing and decreasing returns since these conceptions became recognised as part of the data of economic theory. It is to be feared, indeed, that the dubious may again be impelled to ask themselves the questions whether the study has been furthered by the device of making the industry with its representative or equilibrium firm, the unit of study; by the sharp distinction which has been insisted upon between internal and external economies; and by the use of terms static and dynamic instead of the usually more appropriate terms for the economist which denote time. One sometimes wonders whether the suggestive address which Allyn Young delivered a year ago may not prove a more significant event than is yet realised. Who knows that it will not give an impulse to a wider treatment of the laws of returns in which insistence is laid on the necessity of recognising that the major part of production consists of a chain of processes reaching back through various industries and trades to natural products and extending forward to consumers' goods; that the forces which call into operation increasing returns are the forces which at the same time may call into operation decreasing returns; that in one part of the chain decreasing returns may operate but that in another they may be more than counteracted; and that the returns may differ in any part from one time to another? With the plea of M. Byé for an objective study of the laws of returns one cannot fail to have the fullest sympathy. In

the meantime it is apparent that there is ample scope for divergent views as to the exact meaning of the laws and the conditions of their operation.

In closing M. Byé's volume it is incumbent on a reviewer to mention the multitude of misprints it contains; that, although it is a large volume to which one would like frequently to refer, it contains no index perhaps goes without saying.

G. W. Daniels

The Rise of the House of Rothschild. By Count Corti. (London: Victor Gollancz, Ltd. 1928. Pp. 463. 25*s*.)

The object of Count Corti's work is to appraise the influence of this remarkable family on the politics of the world. The story opens with the birth of Meyer Amschel Rothschild in the Frankfort Ghetto in 1743. Meyer was left an orphan at the age of twelve, and carried on the retail and money-changing business in which his father had already employed him. He also collected and sold rare coins and other antiques, and was ever on the look-out for fresh opportunities of profit. It happened that William, Crown Prince of Hesse and grandson of the King of England, made a hobby of collecting coins; Meyer Amschel succeeded in obtaining an introduction, and sold him some fine coins on very favourable terms. Luckily for Rothschild, his new patron had a mania for money-making, in comparison with which his coin-collecting was a mere bagatelle. William became, in fact, one of the wealthiest, as he was one of the meanest, men in Europe, and the universal moneylender of the Continent. Rothschild had a friend at court in Buderus von Carlshausen, an official of the Treasury and Keeper of the Prince's private purse. Buderus recommended Meyer Amschel to William for discounting and exchange business, and though the Jewish merchant had to wait a long time before the Prince's suspicions were allayed, he succeeded eventually in gaining William's confidence and was entrusted with business that laid the foundation of his fortune. In 1800 Meyer Amschel was the tenth richest Jew in Frankfort. But it was the French Revolution and the Napoleonic wars which gave the Rothschilds their opportunity. Every Government wanted money: there were loans to be raised, exchanges to be negotiated, armies to be clothed and fed. Wherever there was business to be done, there were the Rothschilds with their offers and quotations. Meyer Amschel had married in 1770 and now had five sons, all of whom he had taken into the business at an early age. The Exchange business required trustworthy repre-

sentatives in various places. Meyer sent his third son Nathan to England to represent the firm and also to do business on his own account. The Rothschilds' wealth had been increasing by leaps and bounds, and Nathan, who settled in Manchester, brought with him a capital of £20,000. He was the ablest and most enterprising of all the sons, with a flair for profitable business which amounted to genius. He soon doubled and trebled his capital, moved to London, and thoroughly enjoyed his life of freedom and opportunity. His chief exploits were the smuggling of English goods through the blockade to the almost unlimited market provided for him by the family at Frankfort, and the transmitting of urgently required funds to Spain for the payment of the troops in the Peninsular War. The British method of financing Wellington had been incredibly clumsy and wasteful: Nathan succeeded in getting gold at comparatively small cost across the Channel to his brother who operated on the north coast of France, and thence by means of bills of exchange, passing through an intricate network of friendly Jewish firms, right through the heart of the enemy country to Wellington in the Peninsula.

The Rothschilds' financial conquest of Europe was achieved by a judicious selection of points of vantage on the Continent. Meyer Amschel, who died in 1812, had divided his business in equal shares between his five sons, with the strictest injunction to work together for the common profit. His command was carried out to the letter: none of them ever criticised or questioned the others' decisions or complained if a transaction turned out less profitable than had been anticipated. Nathan was already settled in England and James in France; later Solomon settled in Vienna and Carl in Naples, while Amschel, the eldest, directed operations in Frankfort. Each contrived to make himself indispensable to his adopted country. Nathan through his connection with Herries, Commissary-in-Chief of the Army, was the first to succeed; France was a more difficult proposition and Austria held out the longest, but eventually Solomon won the complete confidence of the Chancellor. He was helped at every turn by Metternich's secretary, von Gentz, who exploited the friendship of the financier for his personal advantage with cynical shamelessness. The brothers played into each others' hands with the greatest adroitness, whether their respective countries were at peace with one another or not. The situation was often extremely dangerous, and the Rothschilds had the traditional respect of their race for their own skins, physical as well as financial. Nevertheless they triumphed

over all obstacles and came safely through all dangers. Their method was always the same: they saw every opportunity for profitable business long before anyone else and applied themselves immediately, with tireless patience and industry, to securing it. Their capacity for ingratiating themselves with the people who could help them was as remarkable as their insight into the chances of lucrative business. At first they suffered endless rebuffs and disappointments, but they never failed to return to the charge. In the early days they phrased their petitions to prospective patrons with grovelling humility; later, when they had become princes of finance and had obtained the titles and honours which they asked for with so much pertinacity, they still wrote the politest of letters, always protesting their complete disinterestedness and their desire for honour rather than profit. But the fact is that they never failed to give value and were always willing to initiate new business at a negligible profit or even at a loss. Even as small men they had always been scrupulously accurate in all their dealings, prompt in their deliveries and strictly honourable in meeting their obligations. Competitors were elbowed quite ruthlessly out of the market, but their patrons never had cause to regret their business association.

From their earliest days the Rothschilds prepared the way for their transactions by making friends and connections who would prove useful at every step. Buderus, the devoted servant of William of Hesse, the Grand Duke Dalberg, Napoleon's envoy, Herries in England, Metternich, Count Stadion and von Gentz in Austria—these are great names, but the smaller connections were legion. The Rothschilds knew too when and how to render service to their friends. When Dalberg needed 80,000 gulden to enable him to travel in state to the christening of Napoleon's son in Paris, it was Meyer Amschel who came forward spontaneously with an offer of funds which the more cautious Frankfort bankers had refused to lend. It proved a very useful transaction. And when in 1809 the Frankfort home was searched by the French police for the treasure which William of Hesse was suspected of concealing there, Meyer Amschel succeeded in saving his master's property, gave away no information of any kind, and incidentally lent 300 thalers to the chief officer in charge of the proceedings.

The influence of the Rothschilds in European politics between 1818 and 1830 was colossal. Their private couriers covered the Continent and their private vessels brought their merchandise

overseas. No Finance Minister could move without them. When the freedom of the Jews at Frankfort was their price, Metternich paid it. Count Corti's exposition of the tangled maze of financial operations and political intrigue is both lucid and interesting. The floating and underwriting of loans, the conversion of old issues to a lower rate of interest, the despatch of monies to far countries—these are the small-change of finance to-day. At the beginning of the nineteenth century they were marvels of organisation and enterprise. It does not appear that the power wielded by the Rothschild family made them unpopular on the Continent except with the competitors whom they superseded. But in England their support of Metternich's policy of reaction was much disliked and gave Nathan considerable anxiety. The volume ends with the French Revolution of 1830, and the Rothschilds' frantic efforts to save their enormous holdings in the National Debts of all countries from depreciation.

Count Corti tells his tale in a straightforward, restrained and impartial manner. The work is thoroughly well documented and the translation from the German is so good that it seems almost ungracious to mention that a "Conversazions Lexicon" is not a "Conversational" Encyclopædia.

H. REYNARD

Economic History of Europe. Part II: In Modern Times. By M. M. KNIGHT, H. E. BARNES and F. FLUGEL. (George Allen and Unwin. 1929. Pp. vii + 551. 15s.)

THIS book, written "mainly for people who are not professional historians," is an excellent introduction to the study of Economics. The serious student will find here not only an interesting treatment of the economic systems of the leading European states, but something worth adding to his knowledge of the literature of the subject. It is gratifying, but somewhat unusual, to find such a generous amount of space devoted to economic thought in a work on economic history. Not until they have sketched, with considerable care, the general trend of events *and ideas* do the authors proceed to deal separately with England, France, Germany, South-eastern Europe and Russia.

The figures of modern England, France and Germany stand out in agricultural, commercial and industrial settings against a background of pre-nineteenth-century European expansion, in which "tastes and customs underwent great changes with the introduction of vast quantities of new commodities. The

psychological factor of demand is as important as it is subtle in economic activity. The kinds and quantities of goods which people of various social classes feel themselves entitled to comes pretty close to being a fundamental element in shaping the material structure, as well as the mental outlook, of a society." This theme is elaborated at some length in a vivid manner; but the English reader will probably find it difficult to suppress a smile when the authors, waxing eloquent and enthusiastic about the numerous advances made in the realms of production and transportation since 1850, remind him that the contrast "grows more striking as we accompany the passengers (newly landed at Cherbourg) into their taxicabs in Paris and start off at a miraculous pace to cover more of the city in an hour than their grandfathers could have done in a day."

On the major problems the book is sound and commendably cautious. At the outset the authors push out of their way "the older dramatic conception" of the Industrial Revolution as a purely English transformation springing from a few mechanical inventions. Readers are warned "that we should avoid any romantic dizziness about the immediate effects of an 'industrial revolution' beginning about 1750, 1760 or 1770"; and it is suggested that the factual background is inconsistent with attempts to treat the mechanical inventions as *primary* causes. Moreover, a great deal of apparently "factual" information must be accepted with reserve, since the old methods of gathering facts were crude, and the old commerce included an enormous smuggling trade. The "over-dramatisations" and honest errors of earlier writers are attributed, in the main, to under-estimation of developments prior to 1750; insufficient appreciation of factors other than the mechanisation of industrial processes at work between 1760 and 1840; and the assumption that new methods had reached predominance sooner than was actually the case. The difficulties experienced by the early inventors in getting their engines and machines made are well brought out. Suitable materials, tools and skill were often sadly lacking; smith work was crude, and "little was known about bearings capable of working continuously at the speed and pressure required for such parts as connecting rods. Lubrication was another vexing problem in the days before petroleum oils, specially adapted to heat and other peculiar conditions." These and other details, although lacking in popular and dramatic appeal, deserve to be fitted into their proper place in the record.

Minor defects appear in various places. It is a sound plan to

add "suggestions for further reading" at the end of each chapter; but one notices with some surprise the omission of the work of Dr. Buer on population; Dr. Hermann Levy, Dr. Fitzgerald and the Balfour Committee Reports on combines; Dr. J. W. Horrock's *Short History of Mercantilism*; and Mr. Mitrany's essay on "Marx *v.* The Peasant" in the *London Essays in Economics*. Again, some mention of the tontines might have been made when loans and lotteries were under discussion; and in connection with the development of transportation, Trevithick, Hadley and Stephenson are dealt with, but no place is given to the emergence of the idea of a self-propelled road vehicle and the work of Murdock. In another place it seems a rather serious under-estimation of the influence of the early English Socialists during the period 1780–1840 to say that the "real cradle" of Socialism "was rocked in France." Coming to Chapter V, the reader finds that the treatment of agricultural wages in England stops short at the "industrial crisis of 1921–23," so that the Agricultural Wages Boards under the Act of 1924 are not in the picture. Finally, in dealing with workmen's compensation as we know it in England, the authors do not show that they have grasped the important point that since insurance is optional and small employers are much more prone to neglect to insure (especially where they are working at or near the margin) than large ones, the workman is never certain that he is, in fact, covered by insurance against industrial accidents. Moreover, it is likely that the unit cost of workmen's compensation insurance in England at present is higher than it would be under a compulsory State scheme.

It is very useful to have in the latter half of this book a connected account of post-war events in Europe, even if final judgment upon them must be reserved. The reader sees clearly sketched the effects of the loss of territory and shipping tonnage upon German economy; and the emergence of the "new industrial France born of the World War," possessing nearly a quarter of the developed world supplies of iron ore, a greatly augmented textile industry, more developed hydro-electric power than any other European nation, and greatly increased, but still insufficient, coal resources. "Other Western European countries" (including Belgium), Central and South-eastern Europe and Russia are not neglected, but less than one-fourth of the entire volume is devoted to them. Within these limits, however, this part seems to me to be very well done.

The index is good; the maps are helpful; and the whole volume is offered at a reasonable price—which is more than can

be said of the majority of books which come from the United States into the English market.

ALFRED PLUMMER

Ruskin College,
Oxford.

Allgemeine Wirtschaftsgeschichte des Mittelalters und der Neuzeit. By JOSEF KULISCHER, Professor an der Universität Leningrad. (München und Berlin: R. Oldenbourg. 1928–9. Vol. I, pp. x + 351; Vol. II, pp. xi + 553.)

PROFESSOR KULISCHER'S *General Economic History*, based on lectures delivered at the University of St. Petersburg, reached its seventh edition in 1926. A German translation has now been issued. Some sections have been specially rewritten. The whole work has been thoroughly revised and brought up to date.

It was well worth translating. The stream of specialist monographs never ceases. Comprehensive accounts of economic history over long periods are rare. Professor Kulischer has rendered a valuable service. He surveys the economic development of Europe from the fall of the Roman Empire in the West to the closing years of the nineteenth century. His work rests on wide reading and thorough scholarship. Prominence is given to common features, typical cases. It makes significant those dreary masses of unco-ordinated facts which recent research has so diligently accumulated. Moreover, Professor Kulischer has not been content merely to describe economic policy or the economic effects of political and constitutional change. He has sought to write a history of economic life. We learn much about food, drink, clothes, housing conditions, sanitary arrangements, ships, mining operations, commercial travellers, advertisements, industrial exhibitions, accountancy.

The main issues in the various controversies, which have agitated German scholars, are clearly stated—how far mediæval economic development was continuous with that of the Roman Empire, the existence of an original equality among the small freeholders of the early German kingdoms, what significance should be attributed to the Carolingian period for the growth of great estates and manorial rights, the origin of the Gilds, the extent of mediæval trade, the sources of early capital accumulation. In estimating the value of conflicting theories, Professor Kulischer is invariably cautious and conservative. The influence of the late G. von Below predominates. The very detailed lists of relevant monographs and articles appended to each chapter

and the additional references in the foot-notes deserve special commendation.

The two volumes are divided into four books. The first, which has been completely rewritten since the last Russian edition, deals with the early Middle Ages. It is an adequate summary of the evidence available. Though less elaborate in treatment, it has the advantage of being far more readable than Kötschke's study of the same period. Adherents of Dopsch and his disciple Kletler might hold that Professor Kulischer over-estimates the importance of "Naturalwirtschaft" and neglects unduly commercial and credit developments before the tenth century.

The period from the eleventh to the fifteenth century forms the subject of the second book. It is divided into four main sections—agriculture, industry, trade and money. Two criticisms of this book might be permitted. Germany receives more attention than is her due in a "general" economic history of the Middle Ages. Spain is barely mentioned. More extensive use might have been made of easily accessible authorities on Italian economic development (*e.g.* Davidsohn and Doren). France is shabbily treated.

It is difficult to understand why Professor Kulischer should have adopted in his opening chapter Karl Bücher's terminology, with its implication that the typical economic unit of the Middle Ages was the small, self-contained urban community, restricting its economic activities to the local market. Professor Kulischer's subsequent chapters devoted to mediæval trade and industry reveal "exceptions" to Bücher's theory, which are so numerous and so significant as to constitute its complete refutation.

Heinrich Bechtel has recently criticised W. Naudé's statement (adopted by Professor Kulischer, Vol. I. p. 255) that "in perhaps 95 per cent. of the mediæval towns there can be no question of any corn trade."

Professor Kulischer has collected some interesting statistics. The sections dealing with the population, the unequal distribution of income and the extent of trade in the Middle Ages should prove exceedingly useful.

The first 400 pages of the second volume are devoted to the "New Age"; the sixteenth to the eighteenth century. The emergence of production for distant markets as a normal feature of economic organisation distinguishes this period from the Middle Ages. Though the validity of this differentia might be questioned, there can be nothing but praise for the way in which Professor

Kulischer traces the complex evolution of seventeenth- and eighteenth-century commerce and finance—the foundations upon which was to be reared the imposing edifice of nineteenth-century industrialism. He emphasises the vast development and reveals the manifold ramifications of commercial capitalism before the middle of the eighteenth century. He draws in true perspective a picture of the gradual changes which culminated in the "Industrial Revolution." He brings out in full relief against an elaborately designed continental background the specifically English contribution to the European economic system—and this all the more effectively because it is no part of his intention. Professor Kulischer thus supplies a much-needed corrective to the naïve accounts still to be found in English text-books. The description of industrial organisation in the "New Age" is based upon an abundance of material drawn from the most varied sources. Particularly admirable is the chapter on the character of the Domestic System (Verlagssystem) in the several European countries (C. 9). This chapter should be read in conjunction with Professor Kulischer's account of the industrial relations, the hours and conditions of labour, the rates of wages which prevailed before the coming of the Factory system (C. 13). It will not excuse the enormities which disgraced the early nineteenth century, but it may enable us to place them in their appropriate historical setting.

Among the slips in this book: the word "calico" is not derived from Calcutta (p. 169). The south-east of England does not lie between the English and the Bristol Channels (p. 166).

The last book, which comprises only 120 pages, reviews the period 1789—1870. Perhaps considerations of space were responsible for the summary and inadequate treatment of the momentous changes which these years witnessed, and for the arbitrary delimitation of the period.

The connection between the inventions and the progress of physical science is clearly demonstrated. Moreover, Professor Kulischer, following Reuleaux, emphasises the importance of clock-making in the early stages of the Industrial Revolution. The distinctive feature of the years 1789—1870 Professor Kulischer finds in the gradual passing of economic leadership to capitalist undertakers. There are interesting sections dealing with the economic development of Belgium and Switzerland.

There are many slips in this book, *e.g. James* Arkwright (p. 449), Darby is misspelt Derby, and the date of the Coalbrookdale invention is wrong (p. 453). J. LEMBERGER

The University of Belfast.

Alderman Cockayne's Project and the Cloth Trade. The Commercial Policy of England in its main aspects, 1603–1625. By ASTRID FRIIS. (Copenhagen: Levin and Munksgaard. London: Oxford University Press. 1927. Pp. 511. 30*s*.)

DR. FRIIS has made a most substantial and distinguished contribution to the economic history of the earlier seventeenth century. Her central theme is the story of an ill-fated project which convulsed the industry and trade of England during the years 1614–17. Round this text Dr. Friis has built up a vivid and authoritative account of the main factors governing the commercial policy of the period; her book must rank as one of the most noteworthy monographs on English economic history published within the last ten years.

Cockayne's project was designed to promote the dyeing and finishing of woollen cloth in England, for export to the Continent. Large quantities of English cloth were already being exported to the Netherlands, but in the unfinished state; much of this cloth was being finished in the Netherlands for re-export at greatly enhanced prices. To many Englishmen there seemed no valid reason why English cloth should not be finished at home, and exported directly to the countries of final consumption. This would bring relief to great numbers of distressed artisan cloth-workers; it would also increase the value of the main English export and so help to keep the balance of trade favourable. Such ideas for the encouragement of home industries were by no means new in the seventeenth century; but they were very difficult to put into practice. In the first place, it would be necessary to prohibit the export of unfinished cloth; and this would certainly evoke the strenuous opposition of the Merchant Adventurers, who controlled the export trade in white cloth by virtue of legal privileges of long standing. Under Elizabeth the financial services which the Merchant Adventurers rendered to the Crown had been sufficiently important to safeguard the position of the company. James I, however, had not such good reason to defend the privileges of the Merchant Adventurers against the hostility of the other mercantile interests. Moreover, the growing financial embarrassment of the Crown tempted James to play off one body of merchants against another in a somewhat unscrupulous fashion, and to sell commercial privileges to the highest bidders. The earlier financial expedients which James adopted were not markedly successful, however, and in 1614 the King was faced with a position of both constitutional and financial crisis. It was in

these circumstances that James was persuaded, against the feeling of his Privy Council, to adopt Cockayne's clothworking scheme. Cockayne had already secured the support of many influential courtiers by means of lavish bribery; he proposed, furthermore, that the profits of the enterprise should be divided about equally between the Crown and the promoters. If the King would prohibit the export of all unfinished cloth, the promoters would undertake to finish all the cloth offered to them, and find a market for it.

In accordance with this plan the export of unfinished cloth was prohibited in 1614; and when the Merchant Adventurers protested against this by formally suspending operations, the King in 1615 transferred their privileges to a new company of Merchant Adventurers under the governorship of Cockayne. It soon became apparent, however, that Cockayne's project was foredoomed to ignominious failure. The English dyers and clothworkers could not possibly finish as much cloth as had hitherto been exported in the white. Cockayne's company could not find a market for even the small quantity of cloth that could be finished in England, and found it increasingly difficult to sell English cloth abroad in any condition. The Dutch, with great perversity, refused to acquiesce in Cockayne's scheme; they boycotted English cloth, whether finished or unfinished, and deliberately stimulated the weaving of cloth in the Netherlands. Cockayne's original plan was soon modified so as to permit the exportation of white cloth, provided that a gradually increasing number of finished cloths should also be exported. But the dislocation of English industry and trade was much too serious to be remedied by such a half-hearted compromise. Opposition to the new company of Merchant Adventurers grew rapidly, especially since the promoters were continually demanding more favourable trading conditions from the Privy Council. Cockayne continued to distribute money lavishly among the courtiers, and gave a most magnificent banquet, at which James I and his son were presented with large sums of gold. The King was reluctant to believe that so generous a subject could have imperilled the credit of the Crown in an impracticable enterprise, and knighted Alderman Cockayne with the sword of the City. Eventually, however, the failure of the scheme had to be recognised by the King, as it had already been recognised by the other interested parties. In the summer of 1617 the new company was dissolved, and the old Merchant Adventurers were allowed to redeem their former privileges by paying a substantial ransom to the Crown. The King made an unqualified recantation of his economic heresy;

nevertheless, the disastrous effects of the scheme continued for many years to prevent the complete recovery of the cloth trade.

The bare outlines of this sorry story have long been known from the writings of Miss H. Durham, Professor G. Unwin and Professor W. R. Scott; but Dr. Friis is the first to make a detailed analysis of the forces underlying the project. She has worked with great thoroughness among such varied manuscript sources as the State Papers (Domestic), Privy Council Registers, patent rolls, royal warrants, customs and port books. She is able (and only too willing) to correct all the previous writers on the subject, either on points of fact or on points of emphasis. A foreign student, with an imperfect knowledge of the English language, must be very sure of her ground before she criticises distinguished historians so freely and caustically as Dr. Friis criticises Gardiner, Cunningham, Ashley and Unwin. Nevertheless, it must be admitted that many of her criticisms appear to be well-founded; and some of her verbal violence may be due to the difficulties of translation.

In Professor Unwin's opinion, it was the artisan clothworkers of London who were behind Cockayne's scheme. From the clothworkers' court books and other sources he showed that the artisans of the company were active in support of this and other similar schemes of the period; if all English cloth was to be dyed and finished before export, the artisan clothworkers would certainly be among the first to benefit. From this point of view Cockayne might be regarded as a speculative company promoter of a type which was becoming increasingly common; he and his friends provided financial backing for the scheme, and hoped to recoup their expenses from the profits of the monopoly which was to be established.

Dr. Friis cannot accept Unwin's interpretation, because she cannot believe that the artisan clothworkers were influential enough to make head against so powerful a company as the Merchant Adventurers. In her view Cockayne must be regarded not merely as a speculative company promoter, but as representing the organised interests of the Eastland Company, of which he was governor. The Eastland Merchants were not allowed to export unfinished cloth, but competed with the Dutch in exporting finished cloth to the Baltic regions. If the Dutch could be prevented from importing unfinished English cloth, both their finishing industries and their export trade would be handicapped; and incidentally the Eastland Company would strengthen its position in the Baltic. Therefore the Eastland Merchants

willingly used their financial strength for the promotion of Cockayne's scheme, and were a controlling force in the new company of the King's Merchant Adventurers.

To this interpretation, however, it is possible to raise more than one objection. In the first place, the Eastland Merchants did not form any large proportion of the King's Merchant Adventurers. Of the 221 original ordinary members of the new company more than one-third (85) seem to have been cloth-workers, drapers or retailers. The next largest group consisted of 63 merchants who had hitherto been members of the old company of Merchant Adventurers. Of the remainder, 33 were merchants trading to Mediterranean countries (Spain, Italy, Barbary and the Levant). Only 31 members were Eastland merchants; and the rest of the membership was made up of interlopers, who had usually traded to the Netherlands. It is true that the Eastland Merchants achieved a disproportionately strong representation in the government of the new company, perhaps through the personal influence of Cockayne; nevertheless, only 7 of the 24 Assistants were Eastland Merchants, and an equal number were former Merchant Adventurers. In the second place, it may be noted that the Eastland Merchants, apart from Cockayne himself, did not take any considerable share in such trade as was carried on under the scheme. Out of 30,000 cloths exported during the first half of 1616, more than half (18,500) were exported by former members of the old company of Merchant Adventurers. Alderman Cockayne and his son exported 1,209 cloths; the rest of the Eastland Merchants only exported about 1,000 cloths altogether.

According to Dr. Friis, however, Cockayne and the Eastland Merchants were not particularly anxious that the clothworking project should be a success; they had no great interest in the promotion of the dyeing and finishing industries. All they wanted was to break down the monopolistic privileges of the old Merchant Adventurers, and throw open to the other great merchant companies the trade in both finished and unfinished cloth. "Direct exportation to the countries where the cloth was used was Cockayne's real object, whatever the talk of promoting the dyeing and dressing industries." On this point it may, perhaps, be suggested that Dr. Friis tends to become over-subtle. If Cockayne's object was merely to break down the Merchant Adventurers' monopoly, surely he might have got better value for his money by choosing some less hazardous and less costly method of attack?

This mental reservation on a particular point of interpretation must not be regarded as an adverse comment on Dr. Friis' work. The truth is that her standpoint is not necessarily in direct opposition to that of Unwin. Unwin stressed (perhaps unduly) the industrial forces behind the project; Dr. Friis stresses the commercial and financial aspects of the scheme. To some extent, therefore, their views are complementary; just as Dr. Friis' account of the Merchant Adventurers in the early seventeenth century is complementary to Unwin's account of the Merchant Adventurers under Elizabeth, which has been published posthumously since Dr. Friis' work was written.

Taken as a whole, Dr. Friis' book merits unqualified praise for its sustained scholarship in a field which has not yet been adequately opened up to cultivation. English students, reflecting on the patient industry and disinterested scholarship which have entered into the writing of this exhaustive monograph, may well be spurred on " to scorn delights and live laborious days " in the tedious tasks of economic and historical research.

ARTHUR REDFORD

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The Punjab Peasant. By M. L. DARLING. (H. Milford. 11*s.* 6*d.*)
The Land of the Five Rivers: an Economic History of the Punjab. By H. K. TREVASKIS. (Oxford University Press. 10*s.* 6*d.*)

IN the first-mentioned book Mr. Darling has undertaken a close and searching analysis of the extent and causes of agricultural debt in the Punjab. In setting out the causes he gives a vivid picture of the life of the peasant, and the temptations and difficulties which lead or drive him into debt. Such an inquiry is the more valuable as few systematic investigations have been made into the root causes of the poverty of the Indian peasantry. Its existence is proverbial, many reasons for it are patent on the surface, but only when adequate data have been collected and carefully sifted is it possible to estimate the proportion in which the various factors have contributed to bring about the economic situation. As Mr. Darling truly says, the conclusions on the subject have been usually based more upon general impressions than systematic inquiry.

In attacking the problem the author has divided the province into circles exhibiting marked geographic distinctions. Few parts of India present such diversity of conditions as the Punjab, with its arid districts in the west, and flourishing canal colonies, where, with ample security against drought, large and compact

holdings, the agriculturist should, if anywhere, be able to maintain himself in comfort. With such differences in environment the subject could be satisfactorily studied only in detail, but equally when the same causes are found to persist, they may be regarded as basic. As was to be expected, the burden of debt was found to be heaviest in the submontane districts, where the characteristic evils of the rural economy of India are most prominent, over-population, fragmentation and excessive subdivision of holdings, insecure agricultural conditions, and where, in addition, the most important tribe is improvident and prodigal in its expenditure on social ceremonies. At the other end of the scale come the canal colonies, where the debt is comparatively light and the standard of living high. But there are ominous signs in the older of these colonies that this fortunate state of affairs may not be long continued. As the author puts it, "With an improvident and almost wholly illiterate peasantry, wealth is quickly dissipated, and what remains has to be divided among a larger population." There appear to be influences at work which, unless counteracted, may reduce these favoured areas to the level of less fortunate tracts.

The problem of the small-holder in the East is, in fact, not a purely economic one; it is closely intertwined with social customs and religious obligations. This is clearly illustrated by the example of Japan, where a strong Government, with the hearty support of a thrifty and industrious people, has introduced many of the measures for the amelioration of the lot of the small-holder which India has only tentatively begun to adopt. A wide-spread system of rural co-operation flourishes, fragmented holdings have been largely consolidated, production has been increased by scientific methods of cultivation. But the impression left is that, in view of the alarming increase of population, these measures have brought temporary alleviation rather than solved the problem. As long as the perpetuation of the family remains a religious duty, and primitive customs, such as early marriage, encouraging a reckless increase in numbers, retain a firm hold on the people, so long will population tread on the heels of subsistence. India perhaps may be accounted fortunate in not having exhausted the economic remedies, and, if its peasantry are willing to adopt them, can look forward hopefully to the advantages reaped elsewhere. In the variety of the crops produced and their utilisation for commercial purposes there are wide possibilities of secondary occupations suitable for a rural population.

The subject of rural economics in India is one about which much is spoken, much taken for granted, but little known. Mr. Darling, by his careful collection of material relating to one part of the country, and his well-considered deductions from ascertained facts, has added greatly to the common knowledge.

The second of these books, *The Land of the Five Rivers*, is a fascinating history of the Punjab from remote to modern times. The Punjab has had an eventful past, since from its position it has had to bear the brunt of successive invasions from the north, each of which left its mark in the tribal or religious groupings of the population. The author describes the main features of the administrations set up by the conquering races and the religious movements which have served to mould the character of the people and determine the type of civilisation. Such an account is necessarily mainly historical, but it is very readable history. Its value lies in the fact that without a study of the background the existing situation cannot be properly understood, least of all by a Western people imbued with their own ideas of nationality. From an economic point of view, perhaps the most interesting chapters are those dealing with the disastrous effect on the peasantry of the introduction, with British rule, of the complex system of English law and legal procedure, and the steps which the Government was forced to take to save them from expropriation by the money-lending classes. The conception that laws which suit one race must necessarily suit another dies almost as hard as the cognate idea that the form of constitution suited to one race can be transplanted bodily to another with an entirely different historical past. The book is one which can be strongly recommended to all interested in Indian problems.

H. R. C. HAILEY

Dictionary of Official War-time Organisations. By N. B. DEARLE, M.A., D.Sc. (Oxford University Press. 1928. Pp. 322. 12*s*. 6*d*.)

THE State Paper Office, once a familiar feature of St. James's Park, was dismantled in 1862 and its contents were made accessible at the Public Record Office, an example followed gradually in the next fifty years by the archives of the Government departments and their satellites. The State papers of Tudor sovereigns had largely replaced departmental records of the Court and Household of Norman and Plantagenet kings, while then, as now, these royal courts had their provincial sessions and registries.

To some extent, therefore, the cult of archives and the cult of

" dignities " run parallel, and guides to the records would naturally enumerate the titles and offices of the clerks by whom they were compiled or kept. Indeed, lists and even establishments are preserved in ancient records as far back as the reign of Henry I.

In the work under notice Dr. Dearle has not attempted to review either the original sources or the printed literature of the subject, being aware that these have been dealt with elsewhere, and also that the present compilation owed its inception and plan to war-time conditions of the Civil List. The inert mass of this venerable hierarchy was leavened by the spirit of patriotism until its new and urgent functions were redistributed among a multitude of democratic organisms, a nation in committees for counsel on a war that had ceased to be a spectre and become a familiar spirit in every household.

A dictionary of administrative organisations was a new device of Western culture when a state of War was endemic in post-mediæval Europe. In those days, therefore, such a work could not be regarded as having a special significance whether it were compiled in time of war or of peace. There are several well-known " Dictionaries " which purport to give the yearly establishments of the English State departments from the Restoration onwards, and these have been continued by Lists or Calendars or Almanacks that are still in use. At the same time the history of the mediæval departments of the State and of the post-mediæval Secretariat have been dealt with in several scholarly works; while the devolution of our local institutions has been exhaustively described in the great work of the Webbs and is brought up to date in the Local Government Directory.

Hitherto the defect of these official Dictionaries has been an insufficient use of the contemporary archives, which, in fact, were not always available. Even now it would be found necessary to supplement the State Papers and Departmental Records from documents abstracted by earlier Ministers of State, while other difficulties are suggested from a perusal of the Reports of the latest Record Commission. The above works, however, refer to the Civil Service of this country before the War, and a glance at a Calendar or Almanack of the year 1918 will show the bewildering expansions of the Civil Service during the War. At the same time we are faced with a new difficulty, for although the term " Official " has been usually reserved for the service of the State, it has been used in modern times with increasing laxity, while even in earlier times it was not always possible to distinguish between official and unofficial agencies.

Dr. Dearle has alluded in his Preface to this curious but inevitable difficulty. He also remarks that it was not always possible to draw a sharp line, in point of date, between war-time and post-war official organisations, while it was found necessary to prolong the period of their inception to the year 1922.

The plan of this work was governed to some extent by the exigencies of the War itself, which caused so many official traditions or amenities, and even the constitutional relations of the several departments, to be set aside in the interest of military, diplomatic or industrial efficiency.

At the same time even such an obvious and often unintelligent method as an alphabetical and chronological arrangement can be reinforced by scholarly descriptions and cross-references, and in the circumstances Dr. Dearle's classification of his materials is not only expedient but logical. Incidentally too his careful survey of the proprietary archives of these official bodies, great and small, supplies much useful and recondite information concerning their war-time activities. Indeed this monograph will undoubtedly suggest many interesting subjects for further economic and social investigation, and it will also supply valuable materials for that purpose, not only in respect of central, but also of local administration. This anticipation is justified by the reception of the published reports of the Royal Commission on Public Records and the unofficial report of the Local Records conference of 1921, to which the enlightenment of public opinion on this question of national interest is largely due.

Some actual or potential romances of national service during the period of the War, and after, will be revealed by the briefest examination of Dr. Dearle's exhaustive and masterly work. We may also, perhaps, gather that the archives of certain departments which were not directly concerned with the conduct of the War may continue to possess a practical value as well as a national interest.

Naturally the departments connected with the Ministry of Agriculture and Fisheries and of the Board of Trade will be specially noticeable in this connection, though these and other departments of food supply and raw material were, for the time being, subordinated to the requirements of the War, expressed and demonstrated by the old Secretariats and Commissions and by the new ministries with their subordinate departments, and over all a War Cabinet.

It may perhaps be useless to speculate on the possible value of the minutes of local "Pig and Potato Clubs," but at least they

might show that some action was taken for promoting co-operative production, while " Agricultural Produce and Prices Committees " could actually contemplate " diminishing the disparity between prices charged to the producer and those charged to the consumer."

It would perhaps be too much to expect that Dr. Dearle should have kept in touch with the devolution of the Archives of the War since 1918, and of the Reconstruction period since 1922; but it may be hoped that these will be included in a new edition or in a Bulletin which, in some form or other, will be indispensable when the economic and social aspects of the World War are finally reviewed.

HUBERT HALL

Gold and British Capital in India

Some of the recent economic events in India connected with the balance of trade and the imports of the precious metals are, from a currency viewpoint, of world importance. For India still imports year by year large amounts of gold, and to a less extent considerable quantities of silver for non-monetary purposes in settlement of her favourable balance of trade.

In the tables below one lakh of rupees is the equivalent of £7500, and one crore (ten million rupees) the equivalent of £750,000. In Indian finance one always thinks either in lakhs or crores.

The Balance of Trade

(crores of rupees)

	Pre-war Average (1909-10 to 1913-14).	War Average (1914-15 to 1918-19).	Post-war Average (1919-20 to 1923-24).	Last quinquennial Average (1924-25 to 1928-29).
Exports of Indian merchandise (private)	+ 219	+ 216	+ 286	+ 342
Re-exports of foreign merchandise (private) . .	+ 5	+ 8	+ 15	+ 10
Imports of foreign merchandise (private)	— 146	— 148	— 249	— 239
Balance of trade in merchandise (private)	+ 78	+ 76	+ 52	+ 113
Balance of transactions in treasure (private *)	— 36	— 11	— 26	— 50
Total visible balance of trade .	+ 42	+ 65	+ 26	+ 63
Balance of remittances of funds through Government . .	— 42	— 30	— 6	— 41
Total visible balance of accounts	0	+ 35	+ 20	+ 22

Note.—(+) = net export.
(—) = net import.
(*) = excludes transactions which do not enter into the balance of trade.

If the imports of gold and silver on private account are analysed year by year the following interesting results are obtained :

Net Imports of Gold and Silver on Private Account.

Year.	Gold (crores Rs.).	Silver (crores Rs.).	Total (crores Rs.).	Total (£ million).[1]	Percentage of imports of gold to world production of gold.
1919–20 . .	11	—	11	11	14·6
1920–21 . .	− 9	8	− 1	− 0·9	− 11·6
1921–22 . .	− 3	15	12	8	− 3·0
1922–23 . .	41	18	59	40	41·5
1923–24 . .	29	19	48	32	26·6
1924–25 . .	74	20	94	69	66·6
1925–26 . .	35	17	52	39	32·1
1926–27 . .	19	20	39	30	19·5
1927–28 . .	18	14	32	24	15·8
1928–29 . .	21	13	34	23	18·3
Average for last ten years	23·6	14·4	38·0	27·5	22·0

[1] Converted at the average rate of exchange of the year.
NOTE.—(−) = net export.

It will be seen that the net imports of gold in 1924–25 were more than two-thirds of the world's gold production in 1924, and the average of the ten years is more than one-fifth of the world production during the decade. The average for the pre-war period 1909–10 to 1913–14 is 20 per cent., and for the war period 1914–15 to 1918–19 6 per cent. of the world production. The year 1920–21, a tragic year in Indian exchange, when exchange on April 1 was 2*s.* 4*d.*, and by the end of year—for example, on March 7—it had fallen as low as 1*s.* 2⅞*d.*, can hardly be used to refute the dictum that India is a sink of the precious metals. The large imports of gold and silver in 1922–23, 1923–24, and 1924–25 were due to successive good harvests, to the high price of the commodities in which the agriculturist usually spends his surplus, especially piece-goods, and to the low price of gold. The Controller of Currency (Mr. H. Denning) well describes the causes thus:

"Agricultural prosperity consequent upon two successive good harvests was undoubtedly the main reason for the enormous absorption of gold, but there were other influences at work of which the effect was far from negligible. The non-co-operation campaign, succeeded by a growth of communal antipathy, produced a feeling of insecurity which increased the tendency of the public, naturally strong for generations, to invest their savings in bullion. This tendency was further increased by the high price of piece-goods, the consumption of which was considerably

restricted. Finally, the comparative cheapness of gold made it an attractive investment. The continuous appreciation of the rupee in terms of gold reduced the price in Bombay from Rs. 28–13 per tola on April 1, 1922, to Rs. 25–2 per tola on March 31, 1923, and at times during the year when exchange was exceptionally strong the price was even lower. Possibly the hope that the price would again rise and facilitate a repetition of events of 1920–21, when India made large profits by the sale at high prices of gold bought at low prices, had some influence, but whether this was the case or not, the low price of gold undoubtedly increased its popularity for hoarding purposes" (Report for 1922–23).

Among the middle classes the father of the bridegroom has to give the bride ornaments, the greater part of which is of gold. In Gujarat, for example, a middle-class gentleman will give his daughter-in-law at marriage ornaments worth Rs. 600 to 1000, or often a year or a year and a half's salary. In some villages of Gujarat and Kathiawar the value of these ornaments sometimes exceeds Rs. 2000. The father of the bride also gives his daughter for her own use ornaments of gold and silver worth Rs. 200 to 300. If a man saves, he will, in addition, buy gold bullion. In the case of lower castes, a man earning, say, Rs. 15 to 20 per mensem, will have gold and silver ornaments. My peon or messenger, earning Rs. 19 per mensem, has gold ornaments worth Rs. 40 to 50 and silver ornaments worth Rs. 60 to 100. When his son marries he will have to give ornaments worth Rs. 100 to 150. My other peon, earning Rs. 16 per mensem, who has also land, has gold ornaments worth Rs. 500. When his son marries he will give his daughter-in-law, as is customary for a man in his position in the caste, 12 tolas of gold and 20 tolas of silver, costing more than Rs. 300. A high Political Officer in a large Indian State, writing in July 1923, told me that the ruler's private hoard in coin and bullion was more than Rs. 100,000,000. or 10 crores. The ruler had his jewellery valued privately on his accession, and its value was not less than Rs. 2000,000,000, or 200 crores. In a Rajputana State, apart from Rs. 30,000,000, or Rs. 3 crores, in coin and bullion, there was at that time a private treasury containing Rs. 20,000,000 or Rs. 2 crores. In addition, there was jewellery valued at Rs. 30,000,000, or Rs. 3 crores. In Baroda jewellery worth Rs. 20,000,000, or Rs. 2 crores, is on show to the public, and it may be presumed that the jewellery not shown is quite equal in value to that figure. These are but instances.

A very interesting result of the large imports of gold, both bullion and sovereigns, has been the return from circulation of

large amounts of rupees, which have been replaced by gold as a store of wealth. The following data give the statistics of rupee absorption and my estimates of rupee circulation. The method of estimating the circulation of rupees has been described elsewhere.[1]

Absorption crores. Rupee circulation crores.

	Absorption crores.	Rupee circulation crores.
1919–20	+ 20	230
1920–21	− 26	260
1921–22	− 10	235
1922–23	− 10	249
1923–24	+ 8	248
1924–25	+ 4	235
1925–26	− 8	236
1926–27	− 20	269
1927–28	− 4	287
1928–29	− 3	?

NOTE.—(−) = return from circulation.

During the last five years there has been a return of no less than Rs. 31 crores, and during the last ten years Rs. 49 crores have returned to the Government, or an average per annum of a shade less than Rs. 5 crores. The average absorption each year during the war quinquennium (1914–15 to 1918–19) was Rs. 22 crores, a contrast with the last quinquennium, when the tide was the other way. Gold, in short, has replaced rupees in hoards. This is inimical to the finances of the Government, since it means delay in the absorption of the unnecessary stock of rupees. On the ground of economy the Government should not hoard. The Finance Department has since June 1927 been selling silver with the secrecy and discretion necessary in a sensitive market, although, strictly speaking, all the recommendations of the Hilton Young Commission were dependent on the formation of a Central Bank. The programme which the Commission laid down for the reduction of silver stocks[2] dated from the institution of a Central Bank, but the Government, considering such a bank ultimately desirable, thought it appropriate to carry out in advance this recommendation. The stock of silver in the Reserves at the date which the Commission fixed as the basis of the Report—April 30, 1926—was 85 crores of rupees. On August 22, 1929, it was

[1] *Vide* my *Indian Finance and Banking* (Macmillan & Co.); cf. the Memorandum of Sir A. C. McWatters, Financial Secretary to the Government of India, Royal Commission on Indian Finance and Banking, 1926, Vol. II., appendices, p. 73.

[2] Paras. 78 and 145 of the Report.

110½ crores of rupees. The outstanding notes on both dates were approximately the same: 185 crores and 185·9 crores respectively. With the exception of one lot of 9,000,000 ounces of fine silver for delivery in India, all the remaining sales made up to September 4 were of unrefined silver, not acceptable on the Indian market. The proceeds of the sales of silver have been utilised in purchasing gold or gold securities, mainly the latter.

Although in recent years there has been a large capital expenditure, especially on railways, comparatively little was obtained from loans in India or in London. Thus in the quinquennium 1923–14 to 1927–28 the programme of capital expenditure in India was Rs. 120 crores, of which Rs. 69 crores were on railways, Rs. 12 crores for other capital works, and Rs. 39 crores advances to Provincial Loans Fund. In London the capital expenditure was £49½ millions, of which £48¾ millions were for railways and £¾ million for other capital works. All this was financed with the addition of only Rs. 12 crores and £13 millions to the Public Debt. The remainder of the expenditure was from the following sources: Post office Cash Certificates and Post office Savings Bank deposits, Rs. 37 crores; other Savings Bank deposits, Rs. 9¾ crores, Depreciation and Reserve Funds, Rs. 25½ crores; provision for reduction or avoidance of debt, Rs. 22½ crores; reduction in open cash balance in India, Rs. 16¾ crores; Revenue surpluses (including those in the Revenue Reserve Fund), Rs. 12 crores; Provident Fund balances from railways, Rs. 9 crores; gain by exchange, Rs. 7¼ crores, and miscellaneous appropriations from revenue, Rs. 3 crores. From the total of these items —Rs. 152¾ crores—the balance of Rs. 108 crores was found. The balance of sterling (£36½ millions) was from the surplus of Rs. 44¾ crores (Rs. 152¾ — Rs. 108) supplemented by a reduction of £4¼ millions in the sterling balances. "These results," said Sir George Schuster, "indicate a remarkable achievement and a very great strengthening of the intrinsic position of the country and the security which it can offer for future loans. The provision which has been made from revenue, and even the utilisation of the Railway Reserve and Depreciation Funds, represent a process which, to use a commercial expression, amounts to the 'putting back of surplus earnings into the business,' which is the process by which most sound and prosperous undertakings are built up." It will not, however, be possible to rely to the same extent on these resources to supplement borrowings in the future. Government balances have been reduced to the lowest level, cash certificates sales have been diminishing, and budget surpluses

cannot be counted on in the future to the same degree. In a letter dated September 3 to the Indian Merchants Chamber, Sir George Schuster said that during the last few years the Government had committed itself to very heavy expenditure on railway construction and for the purchase of railways, but "had not made completely adequate provision for raising permanent funds to meet that expenditure." In order to prevent any strain on India's credit (for credit is a very delicate piece of furniture, the cobwebs of which cannot be brushed away with a Turk's head mop), he is controlling rigidly such expenditure. It is sometimes forgotten that there are so many competitors for capital in the London Stock market, and the issues that can be permitted are therefore limited. India, which has a privileged position in the market, has, like Australia, Japan, South America, and all other countries seeking capital, to borrow cautiously and with self-control. The total interest bearing obligations of the Indian Government on March 31, 1929, was Rs. 1074 crores, of which Rs. 604 crores were in India and Rs. 470 (the equivalent of £353 millions at 1*s*. 6*d*. per rupee) in England. The productive assets held against these obligations were estimated at no less a figure than Rs. 873 crores, of which the capital advanced to railways was Rs. 699 crores. If to Rs. 873 crores are added cash bullion and securities held on Treasury account amounting to Rs. 31 crores, this leaves only Rs. 170 crores of unproductive debt. This is a contrast with the position of most other countries of industrial importance. Germany, for example, is dependent to a very large extent on foreign capital. At the end of July last it has been estimated that 40 per cent. of the total deposits of the principal banks were held by foreigners.

No one who has examined the external borrowings of India in the last twenty-five years can deny the care and skill that have been shown in the speeding up of India's internal development by capital raised abroad. Much credit must be given to a series of able Finance Ministers, and above all to that resourceful, prudent, and efficient public servant, the late Sir Lionel Abrahams of the India Office. The Report of the Committee appointed "to consider the question of the flow of capital into India from external sources" laid it down that as a general principle the inflow of external capital is not only unobjectionable in itself, but is a valuable factor in assisting the economic development of a country and in increasing its wealth and employment. They also held that it is even more advantageous that requirements for new capital should be supplied from internal sources so far as

internal capital is forthcoming. In the case of Government and quasi-Government loans, the rate of interest should not be the sole consideration in placing such loans, and, other things being equal, preference should be granted to the Indian investor. The Committee consisted of the Finance Minister, the Commerce Minister, and seven non-officials, three elected by the Council of State and four by the Legislative Assembly.

To mobilise the precious metals for productive purposes, and to ensure thereby the great expansion of capital investment, four things will be necessary. In the first place, education, especially primary education, must be far more widespread and accessible. Secondly, a co-ordinated system of banking must be effectively introduced,. after the exhaustive inquiry now being undertaken into banking and credit facilities has been completed. Thirdly, a continuous All-India investment movement similar to the savings movements in other countries will have to be undertaken in the half-million villages and towns in British India and, if practicable, in the 188,000 villages and towns in Indian States. The movement must be a living and growing one. Fourthly, organised effort must be undertaken to soothe communal and racial antipathies and to alleviate unrest of every kind. In all these the Government have to do much. In fact, the responsibility as well as the initiative will be theirs. In a country like India the strong power of Government is required to bring about economic advancement, and non-official support will be required at every turn. It is evident that co-operation on the official side rests on a recognition of Indian opinion; on the non-official side on a recognition that the Government have only one end in view—the well-being and progress of the country. Things are moving quickly in India to-day. If an Act to prevent child marriage has been recently placed on the statute book, in spite of rigidity of custom in some quarters, there is no reason why the accumulation of gold and silver, next to that in the richest country of the world, the United States, should be any longer permitted to lie sterile. A special appeal for united action is vitally necessary, in spite of poverty in teachers, our ignorance of what we should do, our social fabric, and our internecine quarrels. In education it seems as if we were committed to a complete overhauling of policy. The written word is shut out from nine-tenths of the population, as only 8·2 per cent. were literate at the last Census, and the test of literacy is the ability to read or write a letter or post-card in any language. Of 163 million males in British India, 143 millions were illiterate, and of 154 million

females no less than 151 millions were illiterate. Only 2·5 millions out of 318 millions were literate in English. A nation cannot be on a level for long above the level of its women. Should it rise under the stimulus of a great moral idea (for example, Islam in Arabia) to a higher plane of thought and life, it cannot long maintain itself on that plane unless its women rise to it and kindle similar ideas in the young minds of succeeding generations. With education we shall, in Huxley's words, "ask all institutions, however venerable, by what right they exist, and whether they are, or are not, in harmony with the real or supposed wants of mankind."

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THE MONETARY THEORY OF THE TRADE CYCLE

PROFESSOR PIGOU's article under this heading in the *Economic Journal* for June is primarily a criticism of my contention that the trade cycle is a purely monetary phenomenon. It also includes a discussion of the question of the efficacy of Government expenditure as a cure for unemployment. The two subjects, though they have common ground, are distinct, and I will begin with the former.

Professor Pigou starts his argument by putting forward a thesis which, he says, "is what Mr. Hawtrey seems to hanker after, and certainly is what he ought to maintain if his statement about 'a purely monetary phenomenon' is to be justified." According to this thesis, if the unspent margin (the "sum total of monetary purchasing power") and the circuit velocity of money remain constant, then the consumers' income and outlay remain constant, and "if in these conditions no disturbances are initiated on the side of production the price level must remain constant, and so also . . . must the wages bill and the volume of employment." It follows that provided the unspent margin be kept constant, the trade cycle will totally disappear.

Had Professor Pigou confined himself to saying that provided the consumers' income and consumers' outlay be kept constant, the trade cycle will totally disappear, he would have come very close to one of the principal propositions of the monetary theory of the cycle. It is clear that if the consumers' income and consumers' outlay remain constant, the trade cycle, as we know it, cannot occur, because, under those conditions, production and

the price level cannot (except momentarily) vary simultaneously in the same direction.

Why does he add the further condition that the unspent margin and velocity remain constant? Does he mean to imply that only changes in the unspent margin can be described as "monetary" and that changes in velocity cannot? Obviously not. He himself follows general usage in classing changes in velocity under the head of monetary causes. Why then does he think that the monetary theory of the cycle presupposes that velocity "is in its nature constant"? As he says, I recognise "in more than one passage . . . that the consumers' outlay may be modified, not merely by an alteration in the volume of bank credit, but also by an alteration in the velocity of monetary circulation brought about independently of the volume of bank credit." He might have multiplied the references appended to this statement, and I may point out that in one passage I attached to the phrase, "credit and monetary causes," the express statement that "changes in velocity may be as important as credit movements" (p. 167). Professor Pigou quotes p. 110 of my book as implying that, though velocity may vary, "it will only do so in exceptional circumstances." But the passage he quotes does not say that velocity will only vary in exceptional circumstances, but that it is only in exceptional circumstances that Government expenditure on public works will itself bring about an increase in velocity.

In the concluding part of the article (pp. 192–4), Professor Pigou comes closer to the point. As he says, according to the monetary theory, "the rhythm through which the volume of credit moves, and on which the associated movement of industrial activity directly depends, is a rhythm inherent in the structure of the banking and credit organisation. It is thus independent of the play of non-monetary circumstances, whether variations in the temper of business men, Government policy or anything else whatever."

He contrasts his rigid statement of the case in these words with my own statement that, "if the monetary theory of the trade cycle traces the period to the rate of progress of credit movements in their effect upon the gold reserves, that does not mean that this rate of progress is not itself affected by non-monetary causes."

By way of reconciling the two I may point out that "non-monetary circumstances, whether variations in the temper of business men, Government policy or anything else whatever"

may themselves affect the *monetary* situation. According to the monetary theory of the trade cycle, their effect on the progress of the cycle is limited to their effect on the monetary situation.

Professor Pigou jumps to the conclusion that there is no considerable difference between this and the orthodox view, according to which, " when an upward movement begins, the rate at which the volume of credit expands is greater or less according as business men and (or) the Government are more or less keen to borrow money to extend their enterprises. The keener they are, the more quickly the moment arrives at which the banking system must take action to protect its reserves."

Here he seems implicitly to concede that the non-monetary causes work through their influence on the creation of credit. Instead of saying, as at the beginning of his article (p. 183) that " the credit movements and the price movements, which accompany and are in part due to them, are an important factor in accentuating the range of the associated industrial fluctuations," he says at the end that " non-monetary factors modify the cycle."

What, it may be asked, is the difference? My answer is that, in the first place, the non-monetary causes *only* modify the cycle through their effect on the monetary situation. And as the banks seek constantly to counteract their effects in this direction, their influence on the rate of progress of the cycle is of a subsidiary character, arising mainly from miscalculations on the part of the banks.[1]

In the second place, I hold not merely that " if credit policy were so controlled as to keep the general price level substantially stable, the magnitude of these industrial fluctuations would . . . be reduced in an important degree " (p. 183), but that the *cyclical* fluctuations would be eliminated altogether. The causal chain by which optimism and pessimism and other non-monetary causes influence general productive activity would be decisively severed.

Thirdly, I would say that if the regulation of credit were neither dominated by the gold reserve position, nor based on stabilisation of the price level, but were so managed as to give free play to the influence of non-monetary causes on productive activity (an hypothesis not easy to formulate with precision), then the consequent variations of productive activity would be entirely irregular with no more trace of periodicity than the alternations of red and black or odd and even. The causes are such that their effects might be felt for several days, weeks or

[1] I ought to add that non-monetary causes affecting the balance of payments may materially modify the progress of the cycle in any particular country.

months, and possibly in exceptional cases for years, but the effects of one might be modified or counteracted by the intrusion of another at any moment. Also there would be no necessary correspondence between the tendencies to productive activity or the reverse in any one locality or country and those in any other.

Professor Pigou finds fault with my use of the term "periodicity," because "a true periodic phenomenon is one whose recurrences are separated by a precise and constant time interval." "*Any disturbance*," he says, "which embraces an upward and downward movement spread over a finite interval of time can be depicted as a wave; and if periodicity is compatible with variations in the height, length, and inter-relations of successive waves, any series of such disturbances can claim to be periodic." He thinks it "very unfortunate" that I have "provided no definition" as to the degree of regularity constituting "periodicity."

I confess I do not see the point of this criticism. The periodicity that has to be explained in the case of the trade cycle is the periodicity which does actually occur. It is that which Professor Pigou calls (*Industrial Fluctuations*, Second Edition, p. 18) "the curious wave-like movement which industrial activity in modern industrial communities everywhere undergoes." He offers (and quite rightly) a description of the facts and not a definition.

Professor Pigou has endeavoured, in the concluding chapter of Part I of his book, to find in the various non-monetary causes traces of a tendency to periodicity. My grounds for differing from him are given on pp. 165-172 of *Trade and Credit*.

I would sum up the monetary theory of the trade cycle in the following propositions:

(1) Non-monetary causes do not affect general productive activity (as distinguished from the activity of the particular industries immediately affected) except through their monetary effects;

(2) The monetary effects of these causes, in so far as they clash with credit policy, are systematically counteracted by the banks;

(3) If credit policy were based on stabilisation of the price level (suitably interpreted) instead of on gold reserves, cyclical fluctuations could be eliminated altogether;

(4) The non-monetary causes have no tendency to periodicity.

Professor Pigou, while recording his dissent from some but not

all of these propositions, leaves them untouched so far as argument is concerned. He may have very good arguments in reserve, but, till he has produced them, he is not entitled to say that my thesis that the trade cycle is a purely monetary phenomenon, is "deprived of all significant content" or "left unsupported in the air," through my acceptance of the view that non-monetary factors modify the cycle.

There remains the other part of Professor Pigou's article, his defence of the efficacy of Government expenditure as a cure for unemployment. He reverts (p. 186) to the question of velocity. "Suppose," he says, "that instead of spending £100 in buying food and clothes for my personal consumption, I use the £100 to engage painters and plasterers, hitherto unemployed, to repair my house, these painters and plasterers using the money to buy the food and clothes that I forgo. In that event certain money units, that would otherwise have become income and outlay during a year n times, now become income and outlay $(n + 1)$ times. That is to say, V is increased."

Velocity is increased, *provided* the painters and plasterers keep none of their money in hand in balances! That condition only has to be stated to be rejected. *No* ground is put forward either for supposing that the newly employed workmen will not absorb cash in the normal way, or for supposing that he who pays for their employment keeps for that reason any less cash in hand.

The main part of Professor Pigou's argument on this matter is embodied in the hypothetical illustration explained on pp. 188–191 of his article. Wheat is assumed to be the sole medium of payment of wages, which are fixed at a bushel a week. There are ten million work people, nine million of whom are employed, receiving nine million bushels a week, and a million unemployed, supported by $\frac{1}{h}$ of a million bushels a week, raised by the Government from non-wage-earners. Suppose the Government raises an additional amount of wheat, so as to spend R bushels of wheat a week on works of development. It employes R workmen. But the people from whom the wheat is taken will not be able to employ so many men as before.

Suppose that after allowing for this the net number brought into employment is x. Since they would have cost $\frac{x}{h}$ bushels a week if unemployed, the net amount to be raised and therefore taken away from non-wage-earners, is $R - \frac{x}{h}$ bushels. Professor

Pigou assumes that if $\frac{1}{c}$ of the $R - \frac{x}{h}$ bushels "would have been invested in setting labour to work in making capital (*i.e.*, non-consumption) goods," then the number driven out of employment would be $\frac{1}{c}\left(R - \frac{x}{h}\right)$.

I am quite unable to see any foundation whatever for this assumption. It may be inferred from Professor Pigou's treatment of the subject elsewhere that a part of the $R - \frac{x}{h}$ bushels would not have been invested in setting labour to work at all (*i.e.*, that which would have been consumed by the capitalists or held in store). But why is it assumed that the part which would have been invested in setting labour to work in making consumption goods can be diverted without driving the labour out of employment?

The assumption is made all the more puzzling by the explanation on p. 189 of the results that would follow if the Government spends its R bushels of wheat in setting men to work not on capital works but on making consumable goods (*i.e.*, wheat). "It then," we are told, "gets back and has available for further wage payments what these men produce."

If the curve "depicting the marginal wheat output of varying numbers of men . . . is a straight line with a slope of 45 degrees, the total number called in to work will be $R\,(1 + \frac{1}{2} + \frac{1}{4} \ldots)$ *i.e.*, $2R$ men." The underlying idea is clear, but the formula does not seem to be quite right. The reference to marginal output suggests diminishing returns, and if the first R men are paid a bushel for producing half a bushel each, then the $\frac{1}{2}R$ men employed with their produce would produce *less* than half a bushel each. Since the marginal output of the men previously in employment was presumably one bushel per week per man, an average of half a bushel for the next R men seems a low estimate, and Professor Pigou's claim that the number of men called to employment will be several times R seems modest.[1]

But if the Government can give so much more employment by setting men to produce consumption goods, why is the displacement of men from private employment in the production

[1] The magic effects of turning men on to produce wheat arise entirely from the assumption that wheat is assumed to be used as *a means of payment*. The production of the means of payment is not necessarily subject to the law of diminishing returns. If the unemployed were set to manufacture paper money, we might get a divergent series $R(1 + 10{,}000 + 100{,}000{,}000 + \ldots)$. An easy way with the problem of unemployment!

of consumption goods not to be treated as a set-off against the employment given? I cannot help thinking that some error has crept into Professor Pigou's presentation of his hypothesis.

But in any case what is the purpose of the hypothesis? It does not seem to aim at anything more than illustrating Professor Pigou's theory of "wage-goods" or "mobile resources," and it adds nothing to previous expositions of that theory. My grounds for dissenting from the theory I have stated in *Trade and Credit* (particularly pp. 148–151, 155–8 and 178–184) and I need not repeat them here.

R. G. HAWTREY

Comment on the above by Professor Pigou

THE Editor of the ECONOMIC JOURNAL has invited me to comment on the foregoing paper. As regards the main matter of discussion there is not, I think, really any great difference between Mr. Hawtrey and myself. It is chiefly an issue of words and ways of putting things. Thus, I argue that, since velocity of circulation depends upon non-monetary factors, *i.e.* the proportion of their real income which people choose to keep in the form of ready purchasing power, anyone who admits that variations in velocity are influences affecting the trade cycle, ought not to say that this is "a purely monetary phenomenon." Mr. Hawtrey argues that variations in velocity of circulation are monetary causes and that, therefore, it is perfectly proper to say that. Again, if it is the periodicity of industrial fluctuations that is to be a purely monetary phenomenon, and if periodicity is to be used to mean the form of wave movement "which does actually occur," of course Mr. Hawtrey wins his case; for nobody supposes that, in the absence of the monetary factor, the form of wave movement would be exactly the same as it is when that factor is present. To use words in this way seems to me misleading. Anyone who will read our two articles together can judge for himself how far our verbal differences imply differences of substance also. As regards the portion of his paper in which Mr. Hawtrey turns from defence to criticism and examines my § 11—that dealing with Government expenditure in a régime of barter or of stabilised prices—things are different. His argument, together with comments which I have received privately, have convinced me that the analysis of that section is incorrect. I should now say quite simply that the Government can obtain an annual real campaign fund without any set-off in new unemployment except in so far as (1) the

taxation it imposes indirectly checks the performance of work by non-wage-earners and the accumulation of capital, and (2) friction and immobility interfere with such shiftings of occupations as the new adjustment requires. If the real campaign fund amounts to R, this fund employed to the best advantage should, again apart from frictions, enable it to set to work a number of new men such that the aggregate real value of their work falls short annually of their aggregate real wage requirements by R.

A. C. PIGOU

"FAIR WAGES" AND "NET ADVANTAGES"

§ 1. IN *Principles*, Book VI, chap. iii, Marshall expounds his famous doctrine that economic freedom tends to establish equality not of time-earnings but of "efficiency-earnings," and not of money wages but of "net advantages," enjoyed by labour of the same grade in different places and occupations. It is not definitely stated, but it is perhaps implied by Marshall—at all events it is, so far as I can see, true—that this tendency is socially beneficial. The following note is an attempt to assist the student who has occasion to compare afresh this familiar doctrine with Professor Pigou's recently revised discussion of the relation between equality of marginal net products of labour, "fair wages," and the national dividend (*Economics of Welfare*, 3rd ed., Part III. Chaps. ix and xiv).

§ 2. He will find, I think, that the various elements of difference between money wages and "net advantages," which are set out by Marshall in a uniform catalogue, are re-grouped by Prof. Pigou into four categories, which are subjected to separate treatment.

(i) *Differences in the cost of living.*—These are treated (p. 498) as giving rise to "costs of movement" from points where cost of living is low to points where it is high, and hence to inequality in the marginal net products of labour at different points. Given the existence of these differences in the cost of living, it is argued that the resultant inequality in marginal net products is desirable (p. 510 n., cf. p. 552), and is consistent with the prevalence everywhere of "fair wages" (p. 549).

(ii) *Differences in "special amenities enjoyed,"* such as liberty to settle one's own hours of work. With some straining of language, a money measure of these amenities is regarded as forming part of "money wages" (p. 548); and in spite of the definition on p. 136 of marginal net products in terms of "physical

things or objective services," the amenities themselves are regarded as forming part of the marginal net product of the worker who enjoys them.

(iii) *Differences in healthiness, safety, regularity of work.*—These things, like "amenities," are regarded as entering into marginal net product (p. 494). Obviously a money measure of them is not regarded as entering into "wage rates" (p. 493, line 20): since the fact that it does *not* so enter, and that therefore work-people are tempted to ignore these differences, is the whole point of the argument of chap. ix, § 4. We are bound, however, to suppose that such a money measure *is* regarded as entering, like a money measure of other "amenities," into "money wages" (p. 548). Otherwise the statement on p. 549, that "fairness" between similar persons implies equality of "real wages"—defined as "money wages" corrected for cost of living —cannot stand.

(iv) *Differences in opportunity for supplementary family earnings.*—These are treated in chap. ix on the same footing as (i) differences in cost of living (p. 504). But in chap. xiv. in connection with the conception of "fair wages," nothing is said about them; and we are left uncertain whether or no such opportunities have now been subsumed with other "amenities" into marginal net products, and their money measure into "money wages." If they have, differences in what are ordinarily called money wages due to this cause are being regarded as "fair"; if not, they are not. But in the former case the treatment would seem to be inconsistent with the treatment in chap. ix, where such differences are regarded as causing inequality of marginal net products and money wages; while in the latter case the result would seem to be at variance with Marshall's.

§ 3. The whole position is thus somewhat confusing. Subject, however, to the ambiguity under (iv) above, I have no criticism to make of what I take to be Prof. Pigou's final conclusion, namely, that (in his own terminology) universal "fairness" of wages, or (in Marshall's terminology) universal equality of "net advantages," is in the social interest, except so far as it can only be attained by treating real costs of movement (in the ordinary restricted sense) as though they did not exist. But I suggest that if it is desired to establish this proposition in terms of marginal net product and national dividend, the least confusing procedure is as follows. Adhere to the definition of marginal net products in terms of physical things or objective services (p. 136); and treat differences of types (ii) (iii) and (if this is not already done) (iv) on exactly the same footing as differences of type (i), namely, as

factors which render it desirable that there should be *in*equality in the marginal net product of labour at different points, even though such inequality has an unfavourable effect on the size of the national dividend. [The tendency of work-people to ignore danger, etc. will thus appear as a factor tending to make marginal net products and wage rates equal when they ought to be unequal, and not (as in chap. ix. § 4) as a factor tending to make marginal net products (though not "wage rates") unequal when they ought to be equal.]

After reading this note, Professor Pigou has signified that he would regard the suggested change as an improvement.

D. H. ROBERTSON

A NOTE ON "THE PUBLIC REGULATION OF WAGES IN GREAT BRITAIN"

THERE can be very little doubt that Professor Clay in his Presidental address, which appeared in the September issue of the ECONOMIC JOURNAL, puts his finger on the seat of the trouble when he ascribes our present industrial condition, under which a million or more potential wage-earners are unemployed, to the post-war loss of plasticity of wage-rates.

This loss of plasticity he attributes to the fact that unemployment no longer exerts the depressing effect upon the wage level of the community that it did in pre-war days, and few will be found to disagree with his view that if the unemployment problem is to be solved, some other means must be found of ensuring that wages will in general respond more readily to changes in the supply and demand of labour.

There is one paragraph in the address, however, that is likely to be very misleading to the lay mind. In dealing with the trade union policy of pushing up wages regardless of unemployment, he states that there is a condition under which continually higher wage-rates can be paid, and that is when the wealth of the community is steadily growing.

This statement suggests that Professor Clay holds the view that if the productivity of industry were increased it would be possible to pay to the wage-earner proportionately higher wages.

The fact of the matter is, however, that taking the world as a whole, increased productivity would not enable the general wage level to be raised, as the amount that can be paid in money-wages depends not upon the wealth produced, but upon

the quantity of currency in the world and upon the monetary habits of the people in the world.

It is true that if any community increased its productivity *relatively* more than other communities, gold would flow into it from other communities, thus enabling it to increase the amount of its currency, and to pay either higher wage-rates or the same wage-rates to a greater number of wage-earners. Any rise in wage level in such a community, however, would be balanced by an equivalent fall in wage level in some other community in which the productivity had *relatively* fallen.

I raise the point because at the present time it appears particularly desirable to make it as clear as possible that while there is unlimited scope *for increasing the purchasing power of wages* by increasing the productivity of labour, *the amount that can be paid in money-wages is a strictly limited quantity* determined ultimately by the quantity of gold available as a basis of currency.

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OBITUARY

THORSTEIN VEBLEN: 1857–1929

ACCORDING to its indexes, the ECONOMIC JOURNAL has reviewed but one of Thorstein Veblen's eleven books. The issue of September 1925 contains a notice of *The Theory of the Leisure Class*—a volume published twenty-six years earlier and just then reprinted for the ninth time. It seems a natural inference that Veblen's work is not widely known to British economists. Among American economists, on the contrary, no contemporary stands out more clearly from the crowd. Opinions differ sharply concerning the value of his contributions, critical and constructive; but there is no doubt that his influence is wide and deep.

To account for the slight attention paid to Veblen outside of his own country is not difficult. Professor Graham Wallas, who owns a desire "to give him the old-fashioned name of 'genius,'" sorrowfully confesses that "Veblen's books are, even for a professional student, pretty stiff reading."[1] The subject-matter is difficult in that Veblen attacks problems strange to economists and uses evidence few of us can weigh. Even more disconcerting to many is his style—and in his case certainly the style is the man. Professor Wallas wished Veblen "to write a new book,

[1] "Veblen's Imperial Germany and the Industrial Revolution," *Quarterly Journal of Economics*, November 1915: Vol. XXX, pp. 179–87.

in which he shall drop the irony and reticence which is such an admirable means of self-protection for a sensitive teacher who thinks for himself." That Veblen could not or would not do. He was an original, whom the discipline of life in a land of "regular fellows" could not standardise. Those who strive to profit by his uncanny penetration into the foibles of modern society do well to study first his strange personal equation.

A son of Norwegian immigrants, born in Wisconsin in 1857 and brought up on a farm in Minnesota, Veblen did not come into close contact with English-speaking Americans until at twenty years of age he entered Carlton College—a small congregational institution near his home. He found his new associates queer people. They accepted without question conventional modes of thinking and acting quite different from those which prevailed among his own people. Veblen had the strength of mind to resist assimilation, and the urge to inquire how conventions arise and spread. Also he took a naughty pleasure in quizzing earnest souls who felt it bad form to probe respectable beliefs. He loved to propound elaborate explanations for things which most people regard as the plainest common sense. And the more these explanations made folk squirm, the more Veblen enjoyed them.

With this trait Veblen united wide curiosity and remarkable powers of assimilating knowledge. He was a close observer of plants and animals as well as of people, a deft craftsman who liked to experiment with new materials, a quick linguist, an omnivorous reader. Among all the routes leading to the unknown regions he longed to explore, philosophy seemed to his youthful mind the most promising. After graduating from Carlton College he went to Johns Hopkins and then to Yale, where in 1884 he took a doctor's degree in philosophy, with a dissertation upon "Ethical Grounds of a Doctrine of Retribution." But he could find no opening to teach: in those days chairs of philosophy were usually occupied by retired clergymen. Returning to Minnesota, Veblen remained a studious recluse for seven years. Finally, in 1891, an opportunity came to enter Cornell as a student of economics. From that time forward he lived a none-too-smooth life as a teacher and writer upon economics, passing in succession to Chicago, Stanford, Missouri and the New School for Social Research in New York, where he lectured from 1918 until his retirement in 1926.

Veblen thus brought to economics the detachment of a visitor from Mars, a confirmed habit of ironical expression, a specialist's grounding in philosophy, and the loot of much miscellaneous reading. A man familiar with Kant is not over-awed by the

technical parts of economic theory. Nor does he miss the philosophical implications of what is said. Veblen was intrigued by what seemed to him the naïve preconceptions entertained by the masters of political economy from Dr. Quesnay to Dr. Marshall. In particular their notions of human nature seemed to him curious. Contemporary theorists had not really freed themselves from that rationalised concept of behaviour which Bentham had set forth in such downright fashion. Yet Darwin's studies of the instincts, supplemented by William James' analysis of the formation and functioning of habits, had reduced the felicific calculus from its eighteenth-century status as an instrument of scientific inquiry to the status of a quaint delusion. Even the attenuated modern forms of this calculus were mischievous in that they diverted attention from genuine problems. Veblen did not say all this in good round terms. That was not his way. He explained that the conclusions reached by economic theorists were quite consistent with the premises, overt and tacit, from which the theorists reasoned. He sought to show how the notions of human nature employed had become current. He inquired why the pale ghost of hedonism still haunted economic treatises after the body had been decently buried in treatises upon psychology. In short, he dealt quizzically with economic theory as an intellectual curiosity which called for explanation, and thereby annoyed many people who would have taken a frontal attack with good grace.

The fundamental difficulty with economics, in his view, was that it does not conceive its problems in the proper way. Under the spell of Darwin, Veblen held that—

> In so far as it is a science in the current sense of the term, any science, such as economics, which has to do with human conduct, becomes a genetic inquiry into the human scheme of life; and where, as in economics, the subject of inquiry is the conduct of man in his dealings with the material means of life, the science is necessarily an inquiry into the life-history of material civilisation, on a more or less extended or restricted plan. . . . Like all human culture this material civilisation is a scheme of institutions—institutional fabric and institutional growth.[1]

Institutions "are settled habits of thought common to the generality of men."[2] The problems proper to economics, accord-

[1] "The Limitations of Marginal Utility," 1909. Republished in *The Place of Science in Modern Civilisation and other Essays*, New York, 1919, pp. 240, 241.
[2] *Ibid.*, p. 239.

ingly, are problems of genesis and cumulative change in widely-diffused habits of thought concerning ways and means. Such problems must be treated in terms of causation, not in terms of rational choice.

> The two methods of inference—from sufficient reason and from efficient cause—are out of touch with one another and there is no transition from one to the other: no method of converting the procedure or the results of the one into those of the other.[1]

In his constructive work Veblen followed the line thus marked out. He investigated a variety of institutions, or institutional complexes, from the leisure class to the machine process, business enterprise and absentee ownership. Always he sought to explain in causal terms why a certain way of looking at things arose and why that way changed in the course of time. Always he treated behaviour as a whole, not caring to mark off a narrow segment as strictly economic. Always he saw contemporary man as a product of age-long savagery, bewildered by the changes in conditions which he has unwittingly brought upon himself. And always Veblen played with the feelings of his readers quite as much as he played with ideas. Even when he dealt with questions which have a place in standard treatises on economics—such as credit, business combinations, profits, socialism—he drew little from, and he contributed little to, the standard discussions. For the problems which he thought significant are not the problems ordinarily attacked. As he put it, inference from efficient cause and inference from sufficient reason are out of touch with one another, and there is no transition from one to the other. Quite naturally many economists held that whatever his work may be, it is not economic theory.

We shall have no more of these investigations, with their curious erudition, their irony, their dazzling phrases, their bewildering reversals of problems and values. Veblen died in July, among the Californian hills which he fondly likened to the lands that never were outside of William Morris's romances. But those whose intellectual interests are not limited to conventional lines will long find in his work a treasure of subtle suggestion. The sophisticated who can bear to have their share in human frailty exposed will read with quaking pleasure. Perhaps

[1] "The Limitations of Marginal Utility," 1909. Republished in *The Place of Science in Modern Civilisation and other Essays*, New York, 1919, p. 237.

the best book to sample by way of introduction is the volume of collected essays, entitled *The Place of Science in Modern Civilisation* (1919). *The Theory of the Leisure Class* (1899) is the most playful and popular of the full-length discussions, while *Absentee Ownership* (1923) is starkly terrible at times beneath its bland surface. Economists will feel most at home with *The Theory of Business Enterprise* (1904), psychologists with *The Instinct of Workmanship* (1914), and political scientists with *Imperial Germany* (1915) or with *An Inquiry into the Nature of Peace and the Terms of its Perpetuation* (1917). But Veblen demands much of his readers, and not everyone who sips will have the stamina to drink.

WESLEY C. MITCHELL

Columbia University,
October 1929.

CURRENT TOPICS.

THE following have been admitted to membership of the Royal Economic Society:—

Ali, M. A. R. D.
Allan, J. L.
Alsop, A. F.
Anderton, W. H.
Andla, S. N.
Andrews, H. W.
Astbury, S. J.
Baker, H.
Banerjea, Prof. P.
Beck, H. M.
Beech, E. A.
Bell, J. W.
Bennett, H. A.
Betts, H.
Bibby, J. P.
Birrell, T. L.
Blinkhorn, W. E.
Bound, H. C.
Boyd-Watson, T.
Brady, E. M.
Bray, C. H.
Briggs, H.
Brown, R. A.
Bruce, F. M.
Büchi, J. H.
Burdon-Cooper, A. M. M.
Burston, V. C.
Burton, J. H.
Butler, V.
Campbell, A. M.
Campion, H.
Cane, R. A. G.
Chandick, J. C.
Chang, Tseh-Lu.
Charles, J. C. S.
Clarey, R. A.
Clark, E. P.
Clayton, L. G.
Collins, A. G. C.
Creed, F. S.
Culling, C. R.
Curtis, C. R.
Davies, Evan
Davies, H. H.
Davis, B.
Davison, R. C.
Davy, J. J.
Day, M. C.
Director, A.
Donohoe, A.
Drake, F.
Durbin, C. L.
Evans, F.
Exley, H. J.
Farnie, J. R.
Farris, Prof. T. N.
Field, Prof. K.
Foale, J.
Foster, W. R.
Fountain, H. A.
Franks, H.
Garland, J. M.
Geidt, F. B.
Gibbons, F. L.
Gibbons, H. M.
Glickman, E. A.
Gooden, Prof. O. T.
Gordon, F. A.

Graziani, Prof. A.
Green, T. H.
Greggains, P. K. W.
Grierson, G. K.
Gurevich, Dr. D.
Hadfield, T. L.
Hagon, C. E.
Hale, W. P.
Hall, F.
Hall, J. H.
Hanaway, Prof. R. C.
Hare, A. E. C.
Harmon, H. J.
Harris, H. E.
Haseldon, K. G.
Hayden, L. S.
Hemming, A. E.
Hill, A. C. C.
Hilton, F. J.
Himes, M. E.
Hiremath, G. A.
Hoffmann, Prof. F. T. T.
Hogg, P. L.
Holdsworth, J.
Houghton, E. W.
Howard, C. W.
Hunt, A. H.
Husny, A. Z. El-Abedin.
Hussain, K. A.
Hutton, D. G.
Iyer, V. A. N.
James, C. F.
James, J. P.
Jonescu, Prof. D. B.
Jordan, C. A.
Juchhoff, Prof. F.
Kacker, B. K.
Kaufmann, A. F.
Keirstead, Dr. W. C.
Kershaw, C. A.
Khadder, G. A.
Khandhadia, J. D.
Kim, E. Y.
Knight, H. A. E.
Krishmaswamy, P. A.
Langmuir, D.
Leithead, F. B.
Levy, E.
Lewis, J. H.
Liepmann, Dr. L.
Liggett, M.
Lloyd-Jones, A.
Lollar, E. J.
Lotka, A. J.
Lowden, F. O.
Macadam, T. S.
McColl, J. H.
Macduffie, Dr. J.
McNair, Prof. M. P.
Madan, F. J.
Magee, J. D.
Majumdar, S. C.
Malak, S. J.
Mar, Dr. T. T.
Marsh, L. C.
Martin, C. E.
Mayer, Prof. J.
Misra, J. P.
Murty, D. N.
Nair, G. P.
Neisser, Dr. H.
Nelson, W. B.
Norval, Prof. A. J.
Oatley, W. H.
O'Connor, V. P.
O'Grady, Rev. Dr. J.
Pattison-Harris, H. F.
Prasadarao, G. S.
Purvis, A.
Raghavacharya, K. K.
Ramsay, A.
Rao, C. L. N.
Roberts, A.
Rogers, H. O.
Rogers, R. J.
Sabry, A. A.
Sah, N. L.
Sanderson, D. C. D.
Sarma, P. V. R.
Savar, M. S.
Semple, W.
Sloan, W. J.
Smith, A. R.
Smith, H. W.
Spofforth, S. A.
Srikantan, K. S.
Srinivasan, P. R.
Steedman, K. W.
Stridiron, Dr. J. G.
Subbish, M.
Summerskill, J. C.
Suneja, L. R.
Symons, A. E.
Taylor, A.
Taylor, B. G.
Thaxton, W. R.
Tilley, G. E.
Trump, T. H.
Tyson, C. H.
Ullathorne, W. B.
Vaidya, M. J.
Viccajee, V. F.
Vleeschhouwer, J. E
Waddington, J.
Walker, G. J.
Walton, A. E.
Watkins, F.
Weir, M.
Wellenstein, E. P.
White, J.
Winter, C. G.
Wood, J. E.
Woodhouse, W. B.
Wright, W. C.

The following have compounded for life membership of the Society :—

Arendtz, Hermann F.
Ashton, C. Thesiger.
Beresford-Jones, R. Duncan.
Cooke, S. R.
Davies, W. Tudor.
Dawes, G. Roland.
Dowdell, E. G.
Elliott, Rev. W.
Hughes Jones, Edward.
Khan, A. A. Samad.
Khanna, Lall Chand.
Kotany, Dr. Ludwig.
Mohite, A. Balasaheb.
Parikh, N. Damodardas.
Price, C. J. R.
Roberts, Harold W.
Schramek, Henry.
Small, Harold.
Spitzer, H. M.
Trevillion, Alexander.
Wilson, Allan, M., Jr.

The following Libraries have been admitted to Library membership :—

Antioch College, Ohio.
Australian Mutual Provident Society, Sydney.
Birmingham Southern College, Alabama.
Guildhall Library, London.
Hendon Public Libraries.
Institut für Mittel und Sudosteuropaische Wirtschaftsforschung, Leipzig.
Institut für Politische Oekonomie, Vienna.
Instituto di Scienze Economiche e Commerciali di Palermo, Sicily.
Judson College, Rangoon.
Leeds Public Libraries.
Murarichand College, Assam.
Orszagos Tarsadalombiztosito Intezet, Budapest.
Staatswissenschaftliches Seminar, Basel University.
Staatswissenschaftliches Seminar, Marburg University. (Composition.)
Tsing Hua University Library.
Tubize Artificial Silk Company of America, New York City
University College Library, Hull.

SECTION F (Economics and Statistics) of the British Association held its South African meetings under the Presidency of Professor Henry Clay at Capetown (July 23 to 26), and at Johannesburg (July 31 to August 2). The chief characteristic of the meet-

ing was the large proportion of papers contributed by South Africans upon subjects in the study of which they had special interest and experience. At Capetown, Professor R. Leslie (University of Capetown) read a paper upon "Coloured Labour and Trade Unionism in Cape Town" which broke new ground; Professor J. W. F. Gurskopf (University of Stellenbosch) dealt with "The Agricultural Land of South Africa and its Users," and Professor A. Plant (University of Capetown) with "The Anti-dumping Regulations of the South African Tariff"; Mr. D. T. Jack discussed the problem of the future value of gold. A complete session was devoted to a joint discussion with the Agriculture Section upon "The Problem of Stabilising Agricultural Prices, with special reference to Control Boards, Equalisation Funds, and other Methods of Price Regulation," and the subject was introduced by Mr. R. B. Forrester, Mr. R. J. Thompson, and Dr. J. M. Tinley. Professor Clay opened a joint discussion with the Anthropological Section upon "Economic Competition between Advanced and Backward Peoples."

The Johannesburg meeting was chosen by the Association for the delivery of Professor Clay's Presidential Address upon "The Public Regulation of Wages in Great Britain," which has been printed in the last issue of the ECONOMIC JOURNAL; in addition, three of the papers upon South African economic conditions were delivered here by specialists in their respective fields; Dr. J. E. Holloway, the Union statistician, upon "The Demographic Position in the Union of South Africa"; Mr. John Martin, the President of the Transvaal Chamber of Mines, upon "Group Control in the Gold-mining Industry," and Mr. W. H. Clegg, of the South African Reserve Bank, upon "Banking in South Africa." There were also papers by Dr. S. H. Frankel (University of the Witwatersrand) upon "Road and Rail Transport in South Africa," and by Mr. W. H. Hutt (University of Capetown) upon "Collective Bargaining and Distribution."

The papers by Mr. Martin and Mr. Clegg are published in the present number of the ECONOMIC JOURNAL. The other South African papers will be published in the *Journal of the Economic Society of South Africa.*

The Section was honoured by the conferment of the Honorary Degree of D.Sc. upon its President by the University of Capetown. It ought also to be said that the Section was well supported and that widespread publicity was accorded to its proceedings.

PROFESSOR G. F. SHIRRAS writes :—

"The Royal Commission on Labour in India under the Chairmanship of the Rt. Hon. J. H. Whitley, late Speaker of the House of Commons, assembled in India on October 14, 'to inquire into, and report on, the existing conditions of labour in industrial undertakings and plantations in British India, on the health, efficiency and standard of living of workers, and on the relations between employers and the employed and to make recommendations.' The Commission is a very strong and representative one on the whole. It is improbable that it will be able to complete its work in one visit to India, and may, following the example of the Royal Commission on Agriculture, return again next October. During next summer it is likely that it will examine conditions in Great Britain and perhaps some other Western countries.

"Since 1927 India and Bombay in particular have suffered from considerable industrial unrest, and the financial and economic loss to the country of many millions of working days runs into many millions of rupees. Indeed, the loss of wages on this account from 1927 has been about £8,000,000, and that, too, in a country where wages are low as compared with Western standards. It is sometimes forgotten that India has a seat on the governing body of the International Labour Office, Geneva, as one of the eight countries of chief industrial importance. In recent years there has been passed by the Legislature an amount of labour legislation for which the Government has received much praise. Thus the Indian Factories Act was amended in 1922. A Mines Act and a Workman's Compensation Act were passed in 1923: a Trade Unions Act in 1926, and an Industrial Disputes Act in 1929. The Bombay Legislative Council passed this year an Act for the granting of Maternity Benefits.

"The main problem is the practical one of finding an adjustment of the interests of employers and employed which will secure the co-operation of both in the work of production. The mass of workers is illiterate, herd-like, and liable to be easily influenced, as two authoritative reports recently published have undoubtedly proved, viz. the Report of the Bombay Riots Inquiry Committee, and the Report of the Court of Inquiry into the causes of the Cotton Mill strike. India's industrial development is comparatively recent—it is hardly sixty years since the first cotton mills were built in Bombay. Moreover, labour is predominantly agricultural, and the worker, especially in Bombay, often returns to his village to engage in the tilling of his fields. In

other centres—as, for example, in Ahmedabad—labour is very slowly being divorced from work in the fields. One of the most important questions before the Commission will be the possibilities for the growth of a sound trade union movement. Lord Lloyd, who, when Governor of Bombay, was responsible in 1921 for founding the first Labour Bureau in India, held that in Bombay labour was, next to the problem of law and order, the most important of his problems, and in a speech on trade unions gave point to this. The Chairman, Mr. Whitley, on his arrival in India made a statement to Press representatives, in the course of which he said that 'Indian opinion is nearly unanimous in desiring a great advance of Indian industry. This is a desire which I share to the full. As I understand the position, India has emerged from the first stage of industrial evolution; and, so far as I have been able to judge, she seems to have surmounted the difficulties inherent in the transition more easily and more smoothly than did some Western countries. She is now entering on the second stage. New factors, both human and economic, have come into play, and the problem has become as much international as national. Manufacture and commerce are more and more affected by world-wide conditions. Superiority in organisation or in technique soon overleaps national boundaries, and great nations cannot long be content with the supply of internal needs. But there can be no true progress in industry unless that progress is reflected in the conditions of the masses of workers who make industries possible; an advance in which they did not share would be a transient advantage. Healthy and permanent progress is bound up with a steady improvement of the human and economic status of the rank and file of the industrial army. It is the well-being of all the persons engaged in an industry which constitutes the contribution of that industry to the national wealth. It is my hope that our work in India will result in a contribution of some value towards this aim. I hope that by examining the conditions, and suggesting lines of development, we can help India to plan ahead, so that in respect of labour questions Indian industry generally may profit by the successes and avoid the mistakes made elsewhere or in particular parts of this great country.' "

Arrangements have been made whereby Professor Seligman's economic library will be transferred this autumn to Columbia University. The library has been in process of formation for

almost fifty years, and includes several collections like the Francis Place collection of labour works, the Albert Bolles collection of American finance, and others which had been in process of formation for another fifty years. The library contains between 40,000 and 50,000 items, and is especially strong in the early literature of Great Britain, the United States, Germany, France, Italy, and Spain. It includes many items not to be found in the British Museum, the Goldsmith's Library, or in the Bibliothèque Nationale. It is also rich in *incunabula* and early mediæval works bearing on economic topics. The collection of Americana is probably unique. Most of the tracts, not in the original binding, have been rebound in full or half levant by Rivière. A catalogue is in preparation. The library will be open to advanced students on liberal conditions, with free access to the shelves.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

Vol. XCII. Part IV. *The Measurement of Tariff Levels.* A. LOVEDAY. *The New Survey of London Life and Labour.* H. LLEWELLYN SMITH. *A New Method of comparing the Productivity of Crops on Arable Land in England, Scotland and Denmark.* H. FABER. *Double Taxation and Tax Evasion.* W. H. COATES.

Economica.

JUNE, 1929. *The Historical Approach to Rent and Price theory.* D. H. BUCHANAN. *The Argentine Refrigerated Meat Industry.* E. G. JONES. *Tobacco and Coal: a Note on the Economic History of Whitehaven.* P. FORD. *The Story of an Elizabethan Monopoly.* A. H. DODD.

The Eugenics Review.

JULY, 1929. *Reform of Vital Statistics.* SIR B. MALLET.

The Sociological Review.

OCTOBER, 1929. *The Sociological Work of Leonard Hobhouse.* V. BRANFORD. *Thorstein Veblen.* J. A. HOBSON.

Indian Journal of Economics.

JULY, 1929. *Organised Banking in the Days of John Company.* B. R. RAU. *Rent and Land Revenue in Bengal.* J. C. GHOSH. *The Economic Survey of an Indian Village.* E. C. BHATTY. *Economic Aspects of Indian Land Tenures.* N. S. N. AIYENGAR.

Quarterly Journal of Economics.

AUGUST, 1929. *Investment and Saving; a Genetic Analysis.* A. E. MONROE. *Motor-carrier Regulation and its Economic Bases.* G. S. PETERSON. *Money, Trade, and Prices—a Test of Causal Primacy.* M. A. COPELAND. *Some Aspects of the Stable Money Question.* F. A. BRADFORD. *The Reform of Local Taxation in Great Britain.* A. PLUMMER. *The Bank for International Settlements.* J. SMITH.

American Economic Review.

SEPTEMBER, 1929. *Capital Valuation and "Psychological School."* H. G. BROWN. *Jurisdictional Awards and Carpenters' Union.* E. E. CUMMINS. *Two Errors in Interpreting Wage Data.* H. L. FRAIN. *Theory of Consumers' Credit.* J. P. GUILDFORD. *Collective Bargaining and Productivity.* S. J. COON.

Review of Economic Statistics (Harvard).

AUGUST, 1929. *Revised Index of the Volume of Mining.* W. F. MAXWELL. *The Moving Geometric Average.* K. POHLEN. *Review of the Second Quarter of the Year.*

Annals of the American Academy of Political and Social Science.

JULY, 1929. *A Study of Present-day Causes of International Friction and their Elimination;* devotes two sections to economic questions, those of War Debts and the American tariff.

Journal of Economic and Business History (Harvard).

AUGUST, 1929. *History of the Dennison Manufacturing Company—I.* E. P. HAYES. *A Statistical Crime of the Seventeenth Century.* W. H. BEVERIDGE. *Retardation of Industrial Growth.* S. KUZNETS. *Marine Risks and Insurance in the Seventeenth Century.* V. BARBOUR.

Political Science Quarterly.

SEPTEMBER, 1929. *War Indemnities and Business Conditions.* G. BIELSCHOWSKY. *The German Labour Courts.* H. B. DAVIS.

Journal of Political Economy.

AUGUST, 1929. *Social Insurance in Soviet Russia.* A. ABRAMSON. *Federal Reserve Policy,* 1923–4. H. L. REED. *Wages and Subsistence on Spanish Treasure Ships* 1503-1660. E. J. HAMILTON. *Occupational Readjustment of Displaced Skilled Workmen.* R. J. MYERS.

OCTOBER, 1929. *Marginal Productivity and the General Pricing Process.* H. SCHULTZ. *The Standard of Living at a Professional Level,* 1816–17 *and* 1926–27. C. G. WOODHOUSE. *Sir Edward West.* A. PLUMMER. *An Estimate of the Volume of Deposit Currency in the United States.* Y. L. LEONG. *Economic Equality and the Mandates Commission.* E. C. JENKINS.

Wheat Studies of the Food Research Institute (Stanford, California).

AUGUST, 1929. *Wheat under the Agricultural Marketing Act: Some Problems of the Federal Farm Board.* This Act envisages a reorganisation of co-operative marketing and a rationalisation of the process of distribution.

SEPTEMBER, 1929. *Survey of the Wheat Situation, April to July,* 1929. World wheat prices declined in April and May, but rose precipitously in June and July, as the new-crop outlook in North America, especially Canada, turned remarkably unfavourable. But the new crop year opened with a huge accumulation of stocks and Europe may harvest one of the largest crops of recent years. While the Southern Hemisphere crops are not yet made, the outlook for trade and prices remains obscure.

Revue d'Économie Politique.

JULY–AUGUST, 1929. *L'œuvre scientifique de quelques économistes étrangers: I. Joseph Schumpeter.* G. H. BOUSQUET. *La Banque des règlements internationaux et l'internationalisme monétaire.* (ANON.) *Les idées de M. Keynes sur le problème des transferts.* J. RUEFF. *La concentration bancaire en Belgique.* B. S. CHLEPNER. *La pénétration économique des États-Unis dans l'Amérique centrale.* J. GACHON.

Journal des Économistes.

OCTOBER, 1929. *La question du blé.* G. DE NOUVION. *La ligue de libre-échange.* An examination of the idea of a European customs union.

L'Avenir du Travail.

AUGUST, 1929. *La politique de protection de la famille.* F. VERCRUYSSE. *Le problème des migrations de travailleurs.* G. SIMON.

Giornale degli Economisti.

JUNE, 1929. *Esame critico delle dottrine sulla moneta e sui prezzi nell' esperienza economica russa.* J. G. KRETSCHMANN. Both theoretical considerations and a study of price movements in Russia since the war lead to the conclusion that it is impossible to compress into a single formula or theory the complex inter-relations of monetary phenomena. Current theories neglect, in particular, to lay sufficient stress on changes in the general level of prices which result from factors influencing the supply of commodities. *Cenni di Finanza teoricà.* G. SENSINI. *Gli ultimi movimenti dell' oro e il mercato monetario internazionale.* B. FoÀ. A brief survey of gold movements to and from England during 1927 and 1928. *Il porto di Genova e il traffico di transito con la Svizzera.* G. KOHLER. *Un indagine sui prezzi.* PROF. R. BACCHI writes an interesting review of a book by F. C. Mills, *The Behaviour of Prices.*

JULY, 1929. *Sopra alcuni problemi di dinamica economica.* V. MORETTI. An acute and vigorous criticism of recent American attempts to formulate statistical laws of demand. The writer concludes: (1) The law of demand in economic theory refers to the hypothetical response of the purchaser at a moment of time to a given set of conditions: it represents a virtual fact rather than a real fact; it can be conceived but not demonstrated experimentally. (2) Statistical curves of demand, constructed on the basis of data concerning quantities and prices in a market, do not and cannot have an unequivocal meaning, since the same data can yield in some cases a curve of demand, in others a curve of supply, and in others an undefined curve of uncertain shape and, even more, of uncertain significance. (3) A statistical curve of demand is never such as to enable us to determine the shape of the bundle of curves of demand and supply from which it is constructed: it is always the concrete resultant of the actual variations of demand and supply in a period of time and is not comparable to the theoretical curves from which it derives its origin. (4) It would therefore be useless to use a statistical curve of demand as a basis for forecasting future changes in prices, for this would involve projecting into the future an economic situation such as has been verified in the past—a procedure involving logically the assumption of static conditions. *La teoria dell' evoluzione economica.* PROF. H. VOGEL summarises some of the chief conclusions of his book, *Die Theorie des volkswirtschaftlichen Entwicklungsprozesses und ihre Fortbildung durch eine evolutionäre Konjunkturtheorie.* This theory of the cyclical movement of economic life is based on the assumption of a general evolutionary tendency of the whole economic system. This leads him, *inter alia,* to regard the recent practice of attempting to forecast business movements and to explain the causation of the trade cycle, by means of curves from which the secular trend has been eliminated, as not merely inaccurate but also misleading. *Ancora sulla velocità di circolazione della moneta.* LUIGI AMOROSO. *Il porto di Genova e il traffico di transito con la Svizzera.* G. KOHLER.

AUGUST, 1929. *Elementi per una teoria della durata del processo traslativo dell' imposta in una societá statica.* M. FASIANI. The first of two articles in which it is attempted to construct a theory of the duration of the process of shifting the burden of a newly-imposed tax, assuming the existence of a stationary state. *Lo svolgimento ed il sistema della bonifica integrale.* M. R. BUCCELLA. The drainage of water-logged and malarial land in Italy has a long history, but it is only recently, under the auspices of the present Government, that determined and practical efforts have been made to deal with the great tracts of land, especially in the south of Italy, which are either unfit for cultivation at present or are only affording a very small yield. By the term *bonifica integrale* is meant not merely the pressing on of drainage works on a large scale, but also a comprehensive and ambitious policy, involving the expenditure under State supervision of enormous sums of money, to improve every aspect of rural life and to give a new prosperity to the whole country-side.

SEPTEMBER, 1929. *La teoria dei prestiti esteri e la pratica italiana.* L. FEDERICI. Under existing Italian legislation the raising of foreign loans (other than short-term borrowing for less than twelve months) is conditional on the sanction of a special *ad hoc* committee presided over by the Minister of Finance. It was laid down by a Decree of January 6, 1928, that consent may only be given to foreign loans which are "intended for productive purposes, of general interest, and which tend to increase the employment of labour, to increase exportation, or to develop the production in Italy of commodities which would otherwise have to be imported from abroad." An exception to these conditions, which may prove dangerous, is to be found in the permission given to agricultural credit institutions to place bonds in foreign currencies. The Minister of Finance is also empowered by the same Decree to take the necessary measures to ascertain that any capital raised abroad is being used effectively and solely for the purpose for which the loan was authorised. In March 1929 the control over foreign borrowing was tightened by a Decree providing that "until further notice no credit operations abroad, even if intended for productive purposes, may be undertaken by municipalities or provinces." The estimated total amount of long term foreign borrowing, from 1925 to 1928 inclusive, was (net) 313 million American dollars, by far the greatest part of which was raised in the United States. Interest and sinking fund payments on these loans in 1928 amounted to 770 million lire, the average rate of interest being in the neighbourhood of 7 per cent. The new long-term borrowing in 1928 was 61·7 million dollars, and the net import of capital, after deducting payment of interest, etc., was 21·2 million dollars. *Elementi per una teoria della durata del processo traslativo dell' imposta in una società statica.* M. FASIANI. The completion of the article begun in the August number of the *Giornale*, setting out a theory of the duration of the process of shifting the burden of taxation. *Della rendita del consumatore.* SIGNOR S. MAJORANA defends certain views put forward by him, in a recent book on the application of the doctrine of consumer's surplus to problems of public finance, against criticisms by Prof. Gobbi in the April number of the *Giornale*.

La Riforma Sociale.

JULY–AUGUST, 1929. *Costi comparati e valore internazionale.* A. LORIA ED A. CABIATI. Final replies and rejoinders concluding a controversy over the doctrine of comparative costs in international trade. *La Banca internazionale e le riparazione.* A. CABIATI. The International Bank represents a genuine advance on the Dawes Plan in so far as it will permit the debtor States to make their payments with less real cost and sacrifice and the creditor States to receive their annuities with less disturbance of their own or neutral markets. But the benefit derived from the future Bank depends mainly on the accuracy with which the experts have estimated Germany's capacity to pay, and on the effectiveness of the international credit system in operating the Young Plan over a period of sixty years. While the Bank will have no control over those fundamental economic forces which occasion movements of gold, it will be in a position to influence the important class of movements which arise from non-economic (political or national) causes. London has no need to fear that the creation of the new Bank will restrict her credit market or lessen her financial activities, because, lacking entirely the traditions and institutions of London, it will never be a centre for commercial acceptances. Moreover, London would be the most suitable place for the location of the Bank. The most powerful and best administered central banks (*i.e.* those in which political pressure is least in evidence) will be able to exercise, through the International Bank, a real influence over their weaker brethren, and this will be greatly to the advantage of the citizens of States possessing central banks which are weak in the above sense. The new Bank must always remain under the effective control of the central banks of the great financial centres, and it must be understood that it is only within the limits of scope and activities contemplated by the experts that it can prove to be of use also to the lesser States. *Le entrate e le spese effettive dello Stato dal* 1922–1923 *al* 1927–1928. E. ROSSI. *Impulsi, remore e soste, nell' attività dei comuni italiani.* A. SCHIAVI.

SEPTEMBER–OCTOBER, 1929. *Documenti ulteriori a suffragio dell' economismo storico.* A. LORIA. A series of disconnected and fragmentary notes and observations, culled chiefly from the writings of modern authors, which lend support to Prof. Loria's well-known views on the economic interpretation of history. *A proposito di un tentativo di teoria pura del corporativismo.* C. PAGNO. A criticism of a book by N. H. Fovel, *Economia e corporativismo,* the writer of which seeks to prove that active State intervention to lessen the inequalities in the distribution of wealth, by means of transfers from the rich to the poor, would increase the sum-total of economic welfare. *Le mercedi operaie e l'imposta di ricchezza mobile.* A. UCKMAR.

Schmollers Jahrbuch.

AUGUST, 1929. *Einige Bemerkungen zu Schumpeters Theorie der wirtschaftlichen Entwicklung.* E. VON BECKERATH. A critical appreciation. *Die Gesetze in der Nationalökonomie.* PROF. WERNER SOMBART sets out to show that social phenomena may be set to laws exactly like the phenomena of the physical world, and in this connection he gives an interesting classification of

Economic Laws, ranging from the Great Laws, like the Quantity Theory or Ricardo's Theory of Rent, which are merely axiomatic, to Economic Tendencies, which form "the bridge between the Abstract Rationality of Universal Principles and the Irrationality of Reality." *Latente Inflation, Währungssystem, Notenbankpolitik und Börsenhausse.* T. BALOGH. *Die Bedeutung der Akten der Kriegsgesellschaften fur die Erkenntnis des wirtschaftlichen Lebens während des Krieges.* E. ZIPFEL. *Die Wirtschaftslehre und die reformierte Referendarprüfung.* PROF. J. SCHUMPETER.

Zeitschrift für Nationalökonomie (Vienna).

SEPTEMBER, 1929. *The Effects of Stock Exchange Speculation on Conditions of Credit.* R. REISCH. A criticism of Cassel's thesis that the Stock Exchange cannot absorb capital. *Saving in the Individual Economy.* U. RICCI. A summary and elaboration of his theory of savings as based on psychic discount, with an examination of variations of the future value of money. *The Problem of the Concept of Productivity.* A. v. HEYDEL. An argument based on the validity of only a relative idea of productivity. *Behaviourism and the Psychological Foundations of the Austrian School.* H. BAYER. Concludes that the new theories do not endanger the Austrian principles. *Contemporary History of the French Exchange, and the Theory of Foreign Exchanges.* A. AFTALION. A verification of the theories of purchasing parity and the balance of payments. *The Economist and the National Economy.* F. DEGENFELD-SCHONBURG. *Social Collectives.* F. KAUFMANN. (All these articles are in German.)

Archiv für Sozialwissenschaft und Sozialpolititik.

JUNE, 1929. *Staat und Zins.* Basing his conclusions on Böhm-Bawerk's Theory of Interest, DR. CARL LANDAUER here points out that, for the State, the difference in desirability between present goods and goods in the future will not be so marked as in the case of an individual; that, in other words, the market rate of interest is generally low enough to make Government borrowing a profitable matter—in the long run. This consideration applies with almost equal force to large business undertakings, whose managers must take correspondingly long views. *Soziologie und Geschichte.* DR. L. V. MISES. *Wert und Wertgarantie.* DR. P. KECSKEMÉTI. *Konjuncturforschung und Variationsrechnung.* DR. J. TINBERGEN. *Zwei Beiträge zur Theorie der Reichsfinanzstatistik.* DR. KARLMASSAR. *Voraussetzungen und Grundelemente der chinesischen Landwirtschaft.* K. A. WITTFOGEL.

SEPTEMBER, 1929. *Zum Streit um die Wissens-soziologie.* A. VON SCHELTING. *Die Machtideen der Klassen.* A. KOLNAL. *Die Siedelung in Grossbritannien.* F. HEYER.

Weltwirtschaftliches Archiv.

OCTOBER, 1929. *Der individualische und der universalistische Begriff der Weltwirtschaft.* O. SPANN. *Zum Problem der "tableau économique" der kapitalischen Wirtschaft.* A. CASPARY. *Von der "Wohlfahrt" und ihren Messbarkeit.* G. H. BOUSQUET. *Der Begriff der Kapitalistischen Geistes bei Sombart und Weber.* E. FECHNER. *Dei Freihandelsgedanke in der Welt nach dem Kriege.* E. C. VAN DORP.

Vierteljahrshefte zur Konjunkturforschung.

SONDERHEFT 13. *Bestimmungsgründe der Preise für Schlachtrinder.*

Jahrbücher für Nationalökonomie und Statistik.

AUGUST, 1929. *Weddigens soziolgische Wirtschaftstheorie.* K. ENGLIS. *Das Bestehen des Marktmechanismus in unserer gegenwärtigen Wirtschaft.* E. CARELL.

SEPTEMBER, 1929. *Statistik und Sozialökonomie.* H. J. SERAPHIM. *Sozialpolitik als Schicksalsfrage der Antike.* W. WEDDIGEN.

OCTOBER, 1929. *Bemerkungen zu dem Thema : Theorie und Geschichte.* B. PFISTER. *Der Arbeitsbegriff der Wirtschaftswissenschaft.* H. NOWAK.

Zeitschrift für die gesamte Staatswissenschaft.

SEPTEMBER, 1929. *Verfassungslehre.* F. HARTUNG. A critical explanation of the similar work of Carl Schmidt. *Landwirtschaftliche Entwicklungstendenzen in der Welt.* K. RITTER. The agrarian crisis in the world is not the result of the war, but of the bringing of agriculture into capitalistic economy. Rationalisation tends to conflict with diminishing returns, and at present production is in excess of market demands, and consumption is limited by stationary birth-rates. *Die Aufgaben der Finanzwissenschaft.* W. WEDDIGEN.

De Economist (Haarlem).

JULY–AUGUST, 1929. *Regeling van het Nederlandsche en Nederlandsch-Indische Geld- en Muntwezen I.* E. P. WELLENSTEIN. A summary of the history of currency problems in Holland since 1872. The article develops into an account and a criticism of the Report of the Royal Commission on currency problems which appeared in 1926, and the writer proceeds to discuss currency problems in general and the gold exchange standard in particular. *De dekkingsvoorschriften der Nederlandsche Bank volgens haar eerste octrooi van 25sten Maart* 1814. A. J. W. RENAUD. A study of the origins of the provisions regulating the issue of notes by the Netherland Bank, as contained in the charter of 25th March, 1814. Of these, briefly, Article 32 regulated the number of outstanding notes by reference to the capital of the Bank, including loans, discounts, etc.; while Article 33 provided that the maximum should from time to time be fixed " by Us " on the proposal of the president and directors of the Bank. In tracing the ideas underlying these provisions, attention is drawn to the corresponding regulations in the General Bank established by the Batavian Republic in 1802, which were inspired by I. J. A. Gogel. James Steuart is also quoted at some length. Article 33 remained a dead letter until 1847, when a maximum of 52 million gulden was prescribed, combined with the general principle of proportional cover (250 paper gulden against 100 gulden in specie). The Bank Act of 1863 restricted the provision to the principle of proportional cover. *Die Sovetwirtschaft, ihr Wesen und ihre neuere Entwicklung.* BORIS BRUTZKUS. A discussion, written in German, of the Soviet economy since the adoption of the N.E.P. in 1921. The author emphasises the differences between the N.E.P. and Capitalism.

Companies remain organs of the communistic State; business is under the control of democracy; there is no spur to economy; the conditions are those of monopoly. The two main objects pursued are: (i) the rapid industrialisation of Russia; and (ii) the improvement of the economic position of the proletariat. It is held that there has been an honest intention to build Socialism, and that the N.E.P. represents the maximum of Socialism that can be realised, especially in an agrarian State. The article concludes with a consideration of later difficulties caused by the exhaustion of the "heritage of the bourgeoisie," the enormous increase in taxes and the crisis of January 1928.

SEPTEMBER, 1929. *Een tweetal vragen in verband met der nieuwe model der Rijksbegrooting.* ANT. VAN GIJN. A consideration of recent changes in budgetary administration in Holland. Since January 1929, (i) the accounts for the financial year are no longer treated as entirely independent of the accounts for the preceding and following years; and (ii) in future there will be two kinds of receipts and expenditure, for "ordinary" service and for "capital" service. *Regeling van het Nederlandsche en Nederlandsch-Indische Geld- en Muntwezen II.* E. P. WELLENSTEIN. A continuation of the previous article, dealing more particularly with questions relating to central banks in connection with currency. The writer suggests a "Bank Council"; the substitution of nickel coins for silver is also discussed.

OCTOBER, 1929. *De waarde van den kapitaaldienst; het agio van tegenwoordige op toekomstige goederen en de rente.* R. VAN GENECHTEN. The author recalls Wicksell's explanation of the apparent combination of two distinct points of view in Böhm-Bawerk's theory of interest, leading subsequently to developments in two directions. There follows a detailed discussion and restatement of Böhm-Bawerk's theory. *Een voortdurend veranderend beeld van den Nederlandschen Vrouwenarbeid.* ANNA POLAK. A detailed analysis from various points of view of the number of women gainfully employed in Holland. There has recently been an absolute increase in the numbers employed, but viewed proportionately the number tends to become stationary. In contrast to Germany there is a tendency to diminution in the numbers of employed married women. Three conclusions are drawn: (i) there is no ground for the fear of men being displaced by women; (ii) legal prohibition of work in the case of married women is superfluous; (iii) the economic significance of women's work is increasing.

Scientia.

AUGUST, 1929. *The Basic Factors of American Life.* R. B. WESTERFIELD.

SEPTEMBER, 1929. *De la nécessité d'une entente et d'une organisation économique internationales.* H. SÉE.

Review of Polish Law and Economics.

VOL. I. NO. 4. *Protection of Industrial Ownership in Poland.* S. CZAYKOWSKI. *The Development of Banking in Poland.* A. ATLAS. *Development of National and State Economy in Poland.* J. MICHALSKI.

International Labour Review.

SEPTEMBER, 1929. *An Historical Study of Migration Statistics.* I. FERENCZI. *The Effects of German Labour Legislation on Employment Possibilities for Women.* E. LÜDERS.

OCTOBER, 1929. *The Technique of Balance; its place in American prosperity.* P. W. MARTIN. *Women Workers and their Protection in Soviet Russia. Wages and Hours in the Coal-mining Industry in* 1927.

Index (Jugoslavia).

MARCH, 1929. The first number is issued, in English, of a quarterly publication of the Chamber of Labour for Croatia and Slavonia, for the regular publication of wholesale and retail prices, costs of living, and other social indices. This first issue contains an account of the scheme of calculation adopted.

Revista Nacional de Economía.

MAY–JUNE, 1929. *El patron oro a la luz de la post-guerra.* E. W. KEMMERER. *La técnica de retorno al patron oro.* G. BERNACER. *Ensayos sobre la organización y desarrollo de la riqueza.* A. DE MIGUEL. *Los problemas técnicos de la agricultura.* J. B. PÉREZ. *La constitución de sociedades y la asociación de capitales.* J. R. ALMANSA.

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Ames' Foundation: Year Books of Richard II; 13 Richard II, 1389–1390. Edited for the Ames' Foundation by T. F. T. PLUCKNETT. Spottiswoode, Ballantyne & Co. $9\frac{3}{4}''$. Pp. xlx + 205.

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BÖHM-BAWERK (E. VON). Théorie positive du capital. Première partie. Paris: Giard. 9″. Pp. 496. 70 *fr.*

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